

# **BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

**California Environmental Quality Act**

## **Initial Study and Draft Negative Declaration**

### **Proposed New Regulation 6: Particulate Matter - Common Definitions and Test Methods, Proposed Amendments to Regulation 6, Rule 1: General Requirements and Proposed New Regulation 6, Rule 6, Prohibition of Trackout**

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# **CHAPTER 1**

## **INTRODUCTION**

Purpose of this Document

Scope of this Document

Impact Terminology

Organization of this Document

# CHAPTER 1

## Introduction

The Bay Area Air Quality Management District (Air District or District) is proposing two new rules and modifications to existing Bay Area Air Quality Management District's (BAAQMD or District) particulate matter control rules, including new draft Regulation 6: Particulate Matter-Common Definitions and Test Methods (Reg. 6), Regulation 6, Rule 1: General Requirements (Rule 6-1) and new draft Regulation 6, Rule 6: Prohibition of Trackout (Rule 6-6) (proposed new rules and amendments or proposed project). Proposed new Reg. 6 provides common definitions of terms and source test methods used in all Regulation 6 rules. Proposed new Reg. 6 does not create regulatory requirements or emissions limits. Under the California Environmental Quality Act (CEQA), the Air District is required to consider the potential for any significant adverse environmental impacts to result from these proposed regulatory revisions. Air District staff have, therefore, directed the preparation of this Initial Study pursuant to CEQA.

As explained in detail in Chapter 3, the Initial Study has found that the proposed amendments will not have any significant adverse environmental impacts. Air District staff are, therefore, proposing that the District's Board of Directors adopt a Negative Declaration under CEQA pursuant to Section 15074 of the CEQA Guidelines.

The Air District is publishing this Initial Study and draft Negative Declaration concurrently with drafts of the proposed amendments and detailed Staff Report explaining in more detail what the proposed amendments will entail. The public should review this Initial Study and proposed Negative Declaration in conjunction with those other documents in order to obtain a full understanding of the proposed amendments and their potential for adverse environmental impacts.

### 1.1 PURPOSE OF THIS DOCUMENT

The Initial Study is a preliminary assessment of the potential environmental impacts of the proposed project. The purpose of the Initial Study is to determine whether a Negative Declaration of Environmental Impact Report (EIR) must be prepared (CEQA Guidelines §15365). If the Initial Study determines that there is substantial evidence that any aspect of the project either individually or cumulatively, may cause a significant effect on the environment, then an EIR must be prepared. If the Initial Study determines that there is no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, then a Negative Declaration should be prepared (CEQA Guidelines §15063(b)). As explained herein, this Initial Study has reached the second conclusion: that there is no substantial evidence that the proposed new rules and rule amendments will have any significant adverse effect on the environment. Accordingly, the Air District has prepared a draft Negative Declaration. The Initial Study provides the documentation for the finding in the draft Negative Declaration that the project will not have a significant impact on the environment (CEQA Guidelines §15063(c)(5)).

The Negative Declaration is a written statement by the lead agency describing why the proposed project will not have a significant effect on the environment and, therefore, does not require the preparation of an EIR (CEQA Guidelines §15371). A Negative Declaration is prepared by Air District staff based on the analysis in the Initial Study, and then is proposed for adoption by the District's Board of Directors. Air District staff provide notice to the public of the draft Negative Declaration and an opportunity to comment on it, and then the Board of Directors considers the Negative Declaration at a public hearing. The Board of Directors considers the Negative Declaration along with any public comments received, and then adopts (or certifies) the Negative Declaration if it finds, using its independent judgment and analysis, that based on the whole record – including the project description, Initial Study, any mitigation measures, and any public comments – that there is no substantial evidence that the project will have a significant effect on the environment (CEQA Guidelines §15074(b)). A Negative Declaration for consideration by the Board of Directors is included as Appendix B.

## **1.2 SCOPE OF THIS DOCUMENT**

This document evaluates the potential impacts of the proposed amendments on the following resource areas:

- aesthetics,
- agriculture and forestry resources,
- air quality,
- biological resources,
- cultural resources,
- geology / soils,
- greenhouse gas emissions,
- hazards & hazardous materials,
- hydrology / water quality,
- land use / planning,
- mineral resources,
- noise,
- population / housing,
- public services,
- recreation,

- transportation / traffic,
- tribal cultural resources, and
- utilities / service systems.

### 1.3 IMPACT TERMINOLOGY

The following terminology is used in this Initial Study/Negative Declaration to describe the levels of significance of impacts that would result from the proposed rule amendments:

- An impact is considered *beneficial* when the analysis concludes that the project would have a positive effect on a particular resource.
- A conclusion of *no impact* is appropriate when the analysis concludes that there would be no impact on a particular resource from the proposed project.
- An impact is considered *less than significant* if the analysis concludes that an impact on a particular resource topic would not be significant (i.e., would not exceed certain criteria or guidelines established by the District). Impacts are frequently considered less than significant when the changes are minor relative to the size of the available resource base or would not change an existing resource.
- An impact is considered *less than significant with mitigation incorporated* if the analysis concludes that an impact on a particular resource topic would be significant (i.e., would exceed certain criteria or guidelines established by the District), but would be reduced to a less than significant level through the implementation of mitigation measures.

### 1.4 ORGANIZATION OF THIS DOCUMENT

The content and format of this document, described below, are designed to meet the requirements of CEQA.

- Chapter 1, “Introduction,” identifies the purpose, scope, and terminology of the document.
- Chapter 2, “Description of the Proposed Rule,” provides background information on Rules involving Particulate Matter and attainment status history in the Bay Area, describes the proposed rule modifications and new rules, and describes the area and facilities that would be affected by the rule.
- Chapter 3, “Environmental Checklist,” presents the checklist responses for each resource topic. This chapter includes a brief setting description for each resource area and identifies the impact of the proposed rule amendments on the resources topics listed in the checklist.

- Chapter 4, “References Cited,” identifies all printed references and personal communications cited in this report.
- Appendix A, Construction Emission Calculations, includes the detailed emission calculations for construction activities that may be required by the proposed new rules and rule amendments.
- Appendix B, Draft Proposed Negative Declaration, presents the Negative Declaration form that Air District staff are proposing for adoption by the District’s Board of Directors.

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## **CHAPTER 2**

### **PROJECT DESCRIPTION**

Objectives

Project Location

Background

Proposed Project Description

Potential Emission Control Technologies

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## 2.0 PROJECT DESCRIPTION

This chapter describes the proposed amendments to Rule 6-1, General Requirements, as well as proposed new Regulation 6: Particulate Matter-Common Definitions and Test Methods and proposed new Rule 6-6, Prohibition of Trackout.

### 2.1 INTRODUCTION

The BAAQMD (Air District) is currently considering making amendments to Regulation 6, Rule 1: General Requirements (Rule 6-1). Additionally, the Air District is proposing a new Draft Regulation 6: Particulate Matter-Common Definitions and Test Methods that will apply to all Regulation 6 Rules, and a new Draft Regulation 6, Rule 6: Prohibition of Trackout (Rule 6-6).

New draft Regulation 6 address three broad categories: general provisions that apply to all rules regulating particulate matter, definitions that apply to more than one rule, and test methods that apply to more than one rule. Proposed new Regulation 6: Particulate Matter-Common Definitions and Test Methods provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate. The general provisions in amendments to Rule 6-1 are primarily focused on monitoring and prevention or corrective actions needed to be in compliance with the Regulation 6 Rules. The definitions in Regulation 6 apply in more than one particulate matter regulation. The intent is to provide the definition once, such that any future amendments to the definition can be made in one location.

Amendments to Rule 6-1 strengthen the general particulate matter limitations to equal the most stringent requirements in California, and also address particulate emissions from storage and handling of significant quantities of bulk materials, including petroleum coke and coal. These emissions present an environmental and public health concern because small dust particles cause or contribute to a wide variety of serious health problems, including asthma, bronchitis, cardiovascular diseases, and cancer. The Air District has committed to reduce fine particulate matter levels to achieve ambient air quality standards and the related health benefits. Bulk materials are unpackaged solids less than two inches in length or diameter, such as soil, sand, gravel, aggregate, construction materials, coke and coal. Wind erosion from storage and handling of these materials can contribute to fine particulate matter pollution when bulk material dust gets carried into the atmosphere by the wind or by being handled in the open air. Coke and coal are particularly troublesome because the dust is black. Coke or coal dust is far more visible than typical geologic dust and black residue on people's cars, windows and patio furniture is especially annoying. Black coke and coal dust also absorb sunlight, so they have a greater impact on climate change than most typical dust sources. These amendments address fugitive dust from significant bulk material operations that have permits to operate from the Air District that produce or use more than ten tons per year of a bulk material, or store the bulk material in stockpiles more than three feet tall or have a footprint of more than 100 square feet.

New Rule 6-6 focuses on road dust, a large source of fine particulates. Road dust is composed of small particles from erosion of the road's surface and fine particles from vehicles driving over and

pulverizing solid materials that may have been deposited on the road. Tire wear and brake pad wear are also sources of particulates found near roadways. Rule 6-6 addresses mud and dirt that can be “tracked out” onto a paved road from a construction site, quarry, landfill or other disturbed surface. This material – referred to as “trackout” – contributes to particulate pollution because vehicle traffic on the paved road will pulverize the mud and dirt into smaller particles (known as silt), and turbulence from the vehicles entrain the silt into the air. Rule 6-6 addresses this problem by prohibiting trackout of mud and dirt onto paved roadways. Prohibition of trackout is intended to control particulate matter emissions.

## 2.2 OBJECTIVES

The overall objectives of the proposed new rules and rule amendments are the reduction of particulate emissions in the Bay Area. Specifically, the objectives of the amendments to Rule 6-1 are to:

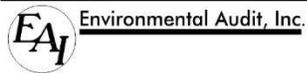
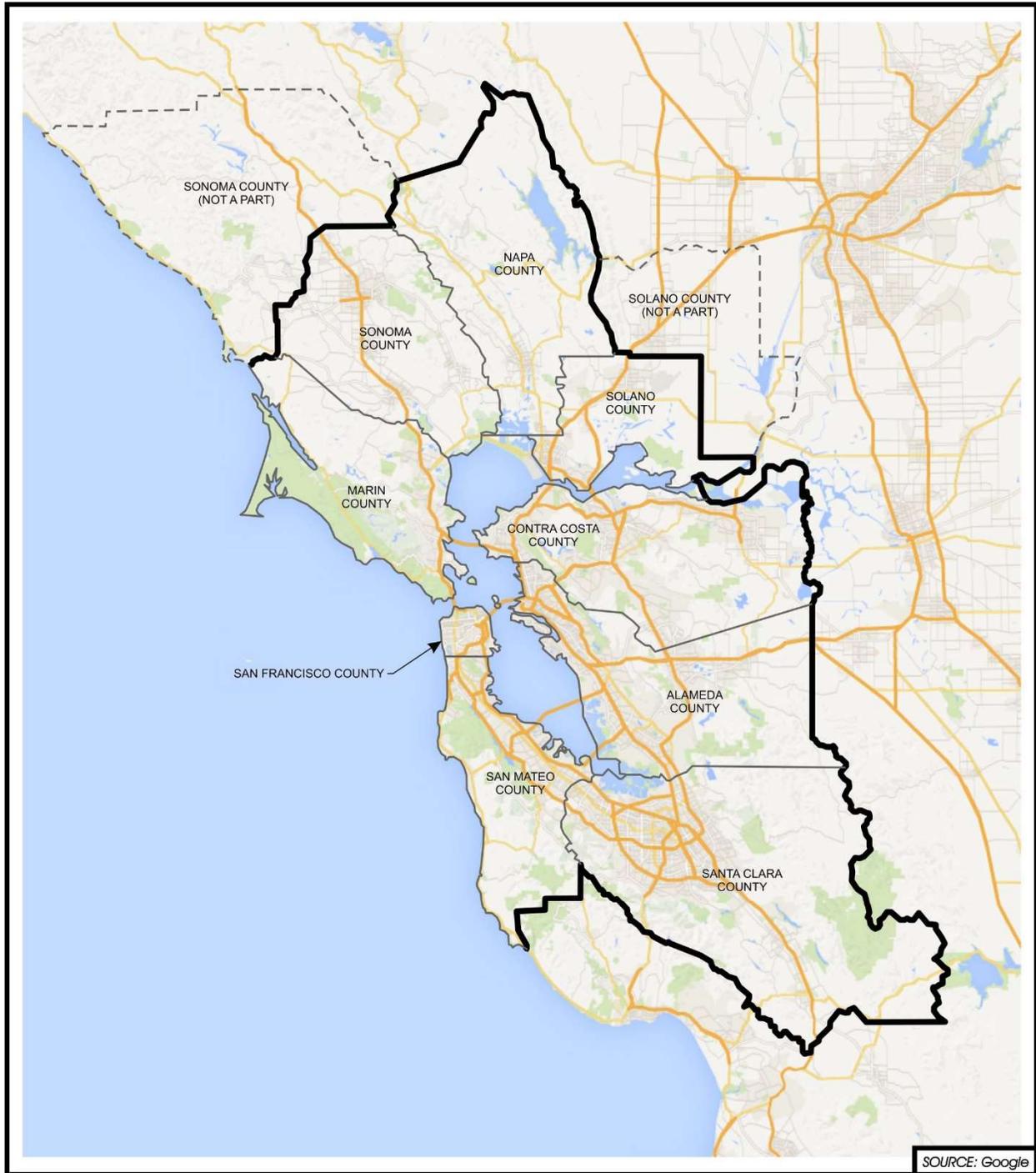
- Update the current particulate matter (PM) emissions limits for general sources of PM emissions (including both concentration limits and mass emissions limits) to reflect the most stringent emissions levels achievable.
- Clarify the testing requirements to measure PM emissions and determine compliance with the rule.
- Specify the source test methods used for compliance testing.
- Update definitions that apply to more than one rule.
- Control significant sources of PM from bulk material sites that store and handle significant amounts of bulk materials.

The objectives of Rule 6-6 are:

- Reduce road dust by reducing trackout of dirt, much and other solids onto paved roadways.
- Reduce PM and visible emissions from vehicles driving over trackout.

## 2.3 PROJECT LOCATION

The BAAQMD has jurisdiction of an area encompassing 5,600 square miles. The Air District includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma counties. The San Francisco Bay Area is characterized by a large, shallow basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The Basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys and bays (see Figure 2-1).



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

## 2.4 BACKGROUND ON PARTICULATE MATTER AND APPLICABLE RULES

Particulate matter encompasses a diverse assortment of tiny airborne particles of different sizes, physical states, chemical compositions, and toxicity. Individual particles can vary in terms of their behavior in the atmosphere and the length of time they remain suspended in the air. PM can originate from a variety of anthropogenic stationary and mobile sources, as well as from natural sources. Typically, PM consists of a mixture of microscopic solid particles and minute liquid droplets known as aerosols that condense at atmospheric temperatures. PM can be emitted directly to the atmosphere (referred to as direct PM or primary PM), or formed in the atmosphere through reactions between other pollutants (referred to as indirect or secondary PM). Primary PM includes soot and liquid aerosols from a wide variety of sources, including cars, trucks, buses, industrial facilities, power plants, cooking and burning wood. Primary PM also includes dust from construction sites, tilled fields, paved and unpaved roads, landfills and rock quarries. Secondary PM may be formed when various pollutants from burning fuels such as sulfur oxides (SO<sub>x</sub>) and nitrogen oxides (NO<sub>x</sub>) react with volatile organic compounds (VOC) and ammonia in the presence of sunlight and water vapor. PM includes carbon and various metallic elements; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust, wood smoke, and soil. Dust from roads, quarries and construction sites are generally larger, coarser particles, whereas combustion soot and secondary PM tend to be very fine particles. Unlike the other criteria pollutants, which are individual chemical compounds, particulate matter is the total weight of all particles in the air.

PM is often characterized based on particle size using the following terminology:

- **Total Suspended Particulate (TSP)**, which includes all sizes of airborne particles.
- **PM<sub>10</sub>**, which is the fraction of the total particles in the atmosphere that are ten microns or smaller in diameter (one micron or micrometer equals one-millionth [ $10^{-6}$ ] of a meter). This includes PM<sub>2.5</sub> (described next).
- **PM<sub>2.5</sub>**, which is the fraction of total particles that are 2.5 microns or smaller in diameter, and is sometimes referred to as “fine” PM. This includes ultrafine PM (described next).
- **Ultrafine PM**, which consists of particles smaller than 0.1 micron in diameter.

Larger particles weigh the most, so large particles represent the largest fraction in terms of weight, whereas the smaller particles are more numerous and have more surface area in aggregate but usually contribute less toward the total mass of PM<sub>10</sub>. Ultrafine PM is estimated to account for roughly 90 percent of the total number of particles but usually represent much less of a percentage of the mass (weight).

When the 1970 Clean Air Act was adopted, regulatory efforts to address PM focused primarily on Total Suspended Particulate (TSP), the generic name for all particles of any size. Regulation 6, Particulate Matter; Rule 1: General Requirements was developed at that time. Subsequently, scientific evidence pointed to smaller particles as posing the most serious health consequences. Therefore, in 1987, the United States Environmental Protection Agency (U.S. EPA) replaced its TSP clean air standard with a PM<sub>10</sub> clean air standard – one that regulated particles less than 10

microns in diameter. In 1997, the U. S. EPA augmented its PM<sub>10</sub> standard with a PM<sub>2.5</sub> clean air standard focused on particles less than 2.5 microns in diameter.

## 2.4.1 REGULATORY FRAMEWORK

The discussion below describes the current regulatory framework addressing PM emissions, including a review of the Air District's existing PM regulations and how they relate to state and federal law

### 2.4.1.1 Overview Current of BAAQMD PM Regulations

The Air District has long been concerned about particulate matter. Regulation 6 was adopted in 1973, as have several regulations that address PM, including Regulation 5, Open Burning. However, on-going research and developments in medical science and public health have identified small particulates as having the greatest health impact. PM regulations that began addressing TSP have subsequently focused on PM<sub>10</sub> and PM<sub>2.5</sub>, and have become more stringent as the health impact of fine particles becomes more clear. The Air District's lack of attainment with the California Ambient Air Quality Standards has caused stronger regulatory action to address PM. There are currently eleven Air District rules directly addressing PM emissions:

- **Regulation 2, Permits, Rule 2: New Source Review** – This rule requires new and modified sources of specified “criteria” pollutants, including PM, to implement the “Best Available Control Technology” (BACT) to limit emissions. The BACT standard is a technology-forcing requirement that requires sources to install the latest state-of-the-art emissions control technology.
- **Regulation 5, Open Burning** – This rule prohibits open fires within the San Francisco Bay Area, with certain exceptions.
- **Regulation 6, Particulate Matter, Rule 1: General Requirements** – This rule contains the Air District's general limitations on particulate matter emissions, and is the rule for which the Air District is currently proposing amendments. This rule is described in more detail in the next section.
- **Regulation 6, Particulate Matter, Rule 2: Commercial Cooking Equipment** – This rule limits the PM<sub>10</sub> emissions from charbroilers used in restaurants.
- **Regulation 6, Particulate Matter, Rule 3: Wood Burning Devices** – This rule prohibits wood burning during wintertime “Spare the Air” alerts.
- **Regulation 6, Particulate Matter, Rule 4: Metal Recycling and Shredding Operations** – This rule requires metal recyclers to develop and implement site specific emissions control plans approved by the Air District.

- **Regulation 6, Particulate Matter, Rule 5: Particulate Emissions from Refinery Fluidized Catalytic Cracking Units** – This rule establishes a limit of ten parts per million by volume (dry basis) for ammonia from FCC’s, or requires the refinery to conduct operational testing and source tests to establish enforceable ammonia emission limits that minimizes total PM<sub>2.5</sub> emissions.
- **Regulation 9, Inorganic Gaseous Pollutants, Rule 13: Nitrogen Oxides, Particulate Matter, and Toxic Air Contaminants from Portland Cement Manufacturing** – This rule requires that TSP emissions (U.S. EPA Test Method 5) are less than 0.04 pounds per ton of clinker produced from the kiln, and less than 0.04 pounds per ton of clinker produced from the clinker cooler. In addition, emissions from any miscellaneous operations or emission point must meet opacity limits of no more than ten percent for no more than cumulative three minutes in any hour observation period. Each facility must also implement a wide variety of Fugitive Dust Mitigation Control Measures.
- **Regulation 10: Standards of Performance for New Stationary Sources** – This rule incorporates the U.S. EPA’s requirements for New Source Performance Standards (NSPS) by reference into the Air District’s regulations.
- **Regulation 12, Miscellaneous Standards of Performance, Rule 4: Sand Blasting** – This rule requires sand blasting operations to meet stack opacity limits of no more than 20 percent for no more than cumulative three minutes in any hour observation period.
- **Regulation 12, Rule 13: Foundry and Forging Operations** – This rule requires foundry and forging operations to develop and implement site specific emissions control plans approved by the Air District.

The Air District currently has a few PM rules that apply broadly to all sources, and several additional rules that apply to specific industries and categories of PM sources. As the Air District moves forward to further control PM emissions, staff will consider each large source category of PM emissions and determine the best approach to control that source category. Such initiatives will be undertaken in separate rulemaking projects. New draft Regulation 6: Particulate Matter-Common Definitions and Test Methods is proposed to provide the over-arching definitions and test methods for the current regulations and potential future source-specific regulations.

#### 2.4.1.2 Interplay with State and Federal PM Requirements

Almost all California Air Resources Board PM-related regulations are directed at mobile sources – primarily diesel engines. With respect to stationary sources, state law authorizes local air districts to determine the best method to regulate stationary sources of PM emissions within their district. adopt PM regulations and leaves the ultimate decision of how best to regulate stationary source PM emissions to each district’s Board of Directors. California air pollution control laws set standards for several specific source categories, such as pile-driving hammers, sandblasting operations, and portable diesel equipment in order to ensure statewide consistency, and state law provides guidelines for the local air districts to regulate agricultural burning.

Federal law also leaves the primary role in regulating PM emissions from stationary sources to local agencies. The U.S. EPA has adopted regulations to limit criteria pollutants from new and modified sources known as NSPS, as well as regulations aimed at the toxic air quality impacts known as National Emissions Standards for Hazardous Air Pollutants (NESHAP). The federal NSPS and NESHAPs encompass a wide variety of specific stationary source categories. The federal regulations delegate responsibility to enforce these requirements to the local air quality agencies. The Air District has incorporated the NSPS by reference into Air District regulations in Regulation 10; and it enforces the NESHAPs by incorporating the NESHAP standards into Air District permit conditions for affected sources, which are enforceable by the Air District under the California Health & Safety Code. Beyond these requirements, the Federal Clean Air Act also authorizes local districts to adopt additional, more stringent requirements as needed to achieve the National Ambient Air Quality Standards.

## **2.5 PROPOSED PROJECT DESCRIPTION**

The descriptions of proposed amendments to New Regulation 6, Rule 6-1 and New Rule 6-6 are described below.

### **2.5.1 NEW REGULATION 6: PARTICULATE MATTER – COMMON DEFINITIONS AND TEST METHODS**

Proposed new Regulation 6: Particulate Matter-Common Definitions and Test Methods provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

### **2.5.2 AMENDMENTS TO REGULATION 6-1**

#### **2.5.2.1 Current Provisions of Rule 6-1: General Limitations**

The current TSP emissions limits in Rule 6-1 have become significantly outdated. As a result, most facilities within the Bay Area are actually achieving PM emissions rates well below what is required. This outcome has been driven in part by the BACT requirement in the Air District New Source Review (NSR) permitting regulations (Regulation 2-2). BACT requires facilities to install the most effective emission control technology when a new source is installed or an existing source is modified, even if that level of control is not required by Rule 6-1. As a result, the controls required by BACT have evolved far ahead of the requirements in Rule 6-1, and for many facilities, the permit conditions established by BACT set the PM emissions standards for that facility.

#### **2.5.2.2 Proposed Amendments to Rule 6-1: General Provisions**

The proposed amendments to Rule 6-1 fall into three broad categories:

- Update the current particulate matter emissions limits for general sources of PM emissions (including both concentration limits and mass emissions limits) to reflect the most stringent emissions levels achievable.
- Clarify the testing requirements to measure PM emissions and determine compliance with the rule.
- Specify the source test methods used for compliance testing.

### 2.5.2.3 Update Total Suspended Particles Limits for General Sources

Sections 6-1-310 and 6-1-311 currently establish limits on the concentration of TSP in each source's exhaust and the total mass of TSP emitted, respectively. The draft amendments to Rule 6-1 update the rule within its current structure: a general particulate matter rule that limits TSP emissions from a wide variety of sources. In spite of the greater concern about the health impacts from PM<sub>2.5</sub> and other fine particulates, this rule continues to establish (more) stringent TSP limits for three reasons:

- Reduction in TSP will result in reductions in both PM<sub>10</sub> and PM<sub>2.5</sub> emissions. These reductions will vary by source type, since different sources have differing particle size distribution profiles.
- The current emissions standards that apply generally to all particulate matter sources are TSP concentration and TSP weight emissions limits. Extensive research and testing on many different types of particulate matter sources would be necessary to establish parallel PM<sub>10</sub> or PM<sub>2.5</sub> concentration and weight limits for the wide variety of sources covered by Rule 6-1.
- Source specific rule-making is a better approach to establish appropriate PM<sub>10</sub> or PM<sub>2.5</sub> concentration and weight limits for each source category.

The draft amendments reduce the existing limits to reflect emissions from the most effective emission control technology.

### 2.5.2.4 Bulk Material Storage and Handling

Amendments to Rule 6-1 will also address particulate emissions from storage and handling of significant quantities of bulk materials, including petroleum coke and coal. These emissions present an environmental and public health concern because small dust particles cause or contribute to a wide variety of serious health problems, including asthma, bronchitis, cardiovascular diseases, and cancer. Bulk materials are unpackaged solids less than two inches in length or diameter, such as soil, sand, gravel, aggregate, construction materials, coke and coal. Wind erosion from storage and handling of these materials can contribute to fine particulate matter pollution when bulk material dust gets carried into the atmosphere by the wind or by being handled in the open air. Coke and coal are particularly troublesome because the dust is black. Coke or coal dust is far more visible than typical geologic dust, and black residue on people's cars, windows and patio furniture is especially annoying. Petroleum coke and coal dust also absorb sunlight, so they have a greater impact on climate change than most typical dust sources.

The amendments to Rule 6-1 address fugitive dust from significant bulk material operations that have permits to operate from the Air District, including coke and coal, that produce or use more than ten tons per year of a bulk material, or store the bulk material in stockpiles more than three feet tall or have a footprint of more than 100 square feet. This amendment imposes the following requirements for such facilities:

- No source may create a fugitive dust plume greater than five feet long, five feet wide, or five feet tall that exceeds ten percent opacity for more than a cumulative three minutes in any sixty-minute observation period (five percent of the time) using U.S. EPA Test Method 9, or as dark in shade as that designated as Number 0.5 on the Ringelmann Chart.
- No source may create a visible fugitive dust plume that carries beyond the property line of the facility.
- Any spill of bulk material more than six inches high or covers more than 25 square feet must be cleaned up or stabilized with moisture, a chemical dust suppressant, or a wind screen. Cleanup activities may not exceed the visible fugitive dust plume limitations.

Bulk material storage and handling provisions will affect approximately 120 facilities that store and handle bulk materials, ten of which handle petroleum coke, and three facilities that store and handle coal. Approximately 40 of these facilities already have controls for fugitive dust, mostly water sprays. Wind breaks are a very effective method to control wind erosion that initiates fugitive dust plumes, particularly when bulk materials are actively conveyed from one place to another. Emission reductions are estimated to be 0.37 tons per day of PM<sub>10</sub>, with approximately 0.03 tpd of emissions being PM<sub>2.5</sub>. The new rule will reduce emissions of particulate matter in the Bay Area, thereby improving public health and reducing nuisance dust deposited on nearby neighbor's property.

#### 2.5.2.4.1 Bulk Material Source with more than 6 lbs. per day TSP emissions

There are 72 facilities with 134 sources of more than six lbs. per day of TSP emissions. Forty-four of these sources are already equipped with water spray systems, and the other 90 of these sources do not currently have any dust controls. Air District staff estimates that the 44 sources may elect to upgrade their existing water sprays to water fog or water mist systems in order to reduce water use, but this will not significantly reduce emissions. Air District staff estimates that the remaining sources will be controlled with wind screens, transfer point shrouds, and loading/unloading chutes. Some judicious use of water fog and water mist systems may be necessary in locations where it is difficult to fit wind screens or shrouds. Air District staff expects that less than half of the 90 sources will require supplemental water fog or sprays along with wind screens. In addition, Air District staff estimates that only half of these sources will actually install controls, because the facilities will be able to improve their operations to meet the ten percent opacity requirements. Emissions reductions are estimated based on only 45 of the sources will be fitted with emissions control. Air District staff assumes wind screens/shrouds and loading chutes are 70 percent effective, resulting in emission reductions of 0.37 tons per day of PM<sub>10</sub>, and 0.03 tons per day of PM<sub>2.5</sub>.

#### 2.5.2.4.2 Bulk Material Sources with 2 – 6 lbs. per day TSP emissions

There are 72 facilities with 123 sources of TSP emissions ranging from four to six lbs per day (some of these facilities also have sources with greater than 6 lbs. per day of TSP emissions). Forty of these sources are already equipped with water spray systems, and the other 83 of these sources do not currently have any dust controls. Air District staff estimates that some of the 40 sources with water sprays may be upgraded to water fog or water mist systems to reduce water use, but will not significantly reduce emissions. Air District staff estimates that the remaining sources will likely not be controlled with wind screens, transfer point shrouds, and loading/unloading chutes. Current emissions of 2 – 6 lbs. per day may be small enough to meet the visible emissions performance objective of ten percent opacity without installing additional controls. Air District staff assumes no additional emissions reductions from these sources.

A number of different approaches can control fugitive dust from bulk material stockpiles, transfer operations including scooping, crushing, conveying, and loading. The draft new visible emissions limit and requirements for windscreens are expected to reduce fugitive dust by at least 70 percent. Each of the impacted facilities currently has some of this equipment, so additions or modifications to this equipment would be minor for these facilities.

### 2.5.3 NEW REGULATION 6, RULE 6: PROHIBITION OF TRACKOUT

New Rule 6-6 focuses on road dust, a large source of fine particulates. Road dust is composed of small particles from erosion of the road's surface and fine particles from vehicles driving over and pulverizing any solid materials that may have been deposited on the road. Tire wear and brake pad wear are also sources of particulates found near roadways. Draft new Rule 6-6 addresses mud and dirt that can be "tracked out" onto a paved road from a construction site, quarry, landfill or other disturbed surface. This material – referred to as "trackout" – contributes to particulate pollution because vehicle traffic on the paved road will pulverize the mud and dirt into smaller particles (known as silt), and turbulence from the vehicles entrain the silt into the air. Rule 6-6 addresses this problem by prohibiting trackout of mud and dirt onto paved roadways. Prohibition of trackout is intended to control PM<sub>2.5</sub>, particularly around these areas that can impact nearby young and elderly people, or people with breathing issues.

The principal requirements in the draft new Rule 6-6 apply to bulk material sites, large construction sites, or large disturbed surface sites greater than one acre. These sites:

- Prohibition of Trackout onto Paved Roadways: shall not allow solids from the site to deposit on the adjacent paved road:
  - Any trackout on the paved roadway or paved roadway shoulder cannot exceed a cumulative 25 linear feet of tire tracks, or cumulative 25 square feet at any exit from the site during the workday, and
  - No visible roadway material is allowed on paved roadways or paved roadway shoulder at any exit from the site at the end of the workday.
- Cleanup of Trackout: shall not allow significant visible emissions (a dust plume) during cleanup of visible roadway material.

New Rule 6-6 will affect about 150 – 250 large bulk material, large construction and large disturbed surface sites. Large bulk material sites consist of approximately ten quarries, ten asphalt

plants, and five other miscellaneous bulk solids facilities), large construction sites (150 – 200 construction sites at any given time), and large disturbed surface sites (approximately 15 landfills and ten other unpaved equipment and material storage sites) in the Bay Area. Each of these facilities is currently required to meet a project CEQA requirement, or a Regional Water Quality Control Board requirement to control trackout onto paved roads, but enforcement appears to be spotty. The District found many locations where significant mud and dirt had been tracked out from the exits of these sites and enhanced enforcement by the Air District will improve emissions performance.

### **2.5.3.1 Summary of Estimated Emission Reductions from Entrained Road Dust**

Rule 6-6 requires large bulk material sites, large construction sites, and large disturbed surface sites to take steps to prevent trackout onto paved roadways, as outlined above. Very little trackout occurs from small bulk material sites, small construction sites, and small disturbed surface sites simply because they are small with very little vehicle traffic in and out, so there is very little potential to create trackout. Thus, emission reductions are based on sites of more than one acre. Trackout prevention is currently required as part of a large facility or large construction site's Storm Water Pollution Prevention Plan. It is estimated that 50 percent of current local road dust comes from trackout. The District estimates that approximately one-third of sites are currently marginal or inadequate in their compliance with trackout requirement, and specific limits on allowable trackout and cleanup requirements will reduce PM emissions from the existing one-third marginal performers by approximately 25 percent. Twenty-five percent reduction in emissions from 50 percent of the road dust from local roads will result in emission reductions of 12.5 percent. This gives a total reduction of 2.69 tpd of TSP, 1.23 tpd PM<sub>10</sub>, and 0.18 tpd PM<sub>2.5</sub>.

The Air District is publishing the text of the proposed amendments in conjunction with this Initial Study which sets forth the specific revised regulatory language for each of these proposed changes. The proposed changes are also described in detail in the Staff Report that has been prepared for the proposed new rules and rule amendments.

## **2.6 POTENTIAL EMISSION CONTROL TECHNOLOGIES FOR PARTICULATE MATTER**

To comply with the proposed Regulation 6 rule amendments and new Rule 6-6, some projects involving new or modified sources, may need to implement emission reduction measures. Emission reduction measures that may be taken in response to the amendments to existing rules and the proposed new rules are identified below.

### **2.6.1 NEW REGULATION 6: PARTICULATE MATTER–COMMON DEFINITIONS AND TEST METHODS**

Proposed new Regulation 6: Particulate Matter-Common Definitions and Test Methods provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits, so no new controls will be required.

## 2.6.2 PROPOSED AMENDMENTS TO RULE 6-1

Most Bay Area emission sources PM limits have been established through permit conditions when the source was installed or modified. The general nature of the TSP limits in Rule 6-1 requires that they apply to all PM sources, so they are less restrictive than the permit conditions that may be applied to any specific source. As a result, these Rule 6-1 limits are not expected to impact many PM emission sources.

The more stringent TSP limits may apply to a bottle manufacturing facility in Oakland and a facility that manufactures paper tape used to join and smooth wallboard in Santa Rosa. The glass manufacturing facility is shut down with no plans to re-open. The current emissions from the paper tape manufacturer are unknown as there is no supporting source test information available. Additional source tests are required to determine whether additional controls would be required. Based on these uncertainties, any modifications to these two facilities are considered to be speculative and will not be evaluated in this document.

Amendments to Rule 6-1 will also address particulate emissions from storage and handling of significant quantities of bulk materials, including petroleum coke and coal. Methods to reduce PM emissions include the following:

- Minimize the surface area being exposed to wind erosion.
- Wind screens can be used to shield almost any bulk material stockpile, handling equipment (crushers, conveyors, transfer points), or loading/unloading operations.
- Apply dust suppression measures including water fog or water mist systems in locations where it is difficult to fit wind screens or shrouds. Existing water spray systems could be converted to water fog or water mist systems.
- Limit work on windy days.
- Portable transfer chutes and shrouds can be used for loading and unloading bulk materials.
- Control vehicle traffic movements and speed within bulk handling/storage facilities.
- Prevent dirt, mud, and solids spills; and clean up bulk material that has spilled to prevent re-entrainment.

The estimated improvements that will be implemented by sources regulated under amendments to Rule 6-1 are summarized in Table 2-1. Wind barriers or enclosures are effective at reducing wind velocity and controlling wind erosion. Research on wind barrier design shows that the most effective designs have 50 percent porosity, and the height of the windbreak should be as high as the bulk material handling operation or stockpile that it protects. Wind screens are estimated to be 70 percent effective at reducing fugitive dust (BAAQMD, 2017). Enclosing bulk handling stockpiles and operations would be expected to be more effective in fugitive emission control.

**TABLE 2-1  
SOURCES IMPACTED UNDER REGULATION 6 AMENDMENTS**

Regulation 6 Requirements	Number of Sources Affected	Estimated Improvements
---------------------------	----------------------------	------------------------

Bulk Material Sources (more than 6 lbs/day)	44 (18 facilities)	Upgrades to water spray/fog systems
	45 (27 facilities)	Wind screens, transfer point shrouds, loading/unloading chutes, improvements to existing water fog/spray systems
	45 (27 facilities)	Operational improvements
	5 (5 facilities)	New water fog systems
Bulk Material Sources (2-6 lbs/day)	40 (24 facilities)	Upgrades to existing water fog/mist systems
	83 (48 facilities)	No additional control required

In addition to wind screens, judicious use of water is the next most effective way to control dust. Water fog or mist systems can be used to control dust during active handling operations, during bulk material moving operations. Water fog and mist systems create small water droplets that are more effective at contact with small dust particles than water sprays, water hoses or water trucks. Water fog and mist systems use five to ten percent of the water used by water spray systems to accomplish dust control. These water fog systems can also be even more effective when a surfactant (e.g., soap) is used to help the water contact and adhere to the solid particles of dust more easily.

### 2.6.3 PROPOSED NEW REGULATION 6 PARTICULATE MATTER, RULE 6-6 PROHIBITION OF TRACKOUT

Draft Rule 6-6 requires large bulk material sites, large construction sites, and large disturbed surface sites to take steps to prevent trackout onto paved roadways. Trackout prevention is currently required as part of a large facility or large construction site's SWPPP. The District estimates that 50 percent of current local road dust comes from trackout and approximately one-third of sites are currently marginal or inadequate in their compliance with trackout requirements. Methods to reduce trackout include the following:

- Water can be used at small bulk sites, construction sites, and disturbed surface sites to control fugitive dust.
- Limit vehicle traffic to paved or stabilized roads.
- A cleanup crew can use hand brooms and shovels or dust pans to clean up trackout that does occur.
- At large sites, trackout can be prevented by using a "grizzly" bars or a "rumble grate."
- Truck wash stations can be installed.
- Hand shovels and sweeping, or street sweepers can be used to clean up trackout from streets.

## **CHAPTER 3**

# **EVALUATION OF ENVIRONMENTAL IMPACTS**

Introduction

General Information Form

Summary Checklist:  
Environmental Factors Potentially Affected

Determination

Detailed Checklist and Discussion:  
Evaluation of Environmental Impacts

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## CHAPTER 3

### Evaluation of Environmental Impacts

#### INTRODUCTION

The Initial Study is required to identify and evaluate the proposed project's environmental effects. The California Natural Resources Agency has published a checklist for lead agencies to use in doing so, in Appendix G of the CEQA Guidelines. The Appendix G environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. The Guidelines specifically authorize and encourage the use of Appendix G to satisfy the legal requirements for sufficiency of the Initial Study. (Guidelines §§ 15063(d)(3) and 15063(f).)

The Appendix G checklist consists of four elements:

- A general information form, which identifies some basic information about the proposed project.
- A summary checklist of "Environmental Factors Potentially Affected," which lists each resource area evaluated and indicates whether or not the proposed project may potentially have a significant impact in that area.
- A "Determination" form, which states the conclusion that Air District staff has reached as to whether there will be any potentially significant impacts and whether an EIR or a Negative Declaration will be prepared.
- A detailed "Evaluation of Environmental Impacts" checklist, which provides the full analysis and explanation of whether there will be any potentially significant impacts for each impact area.

Each of these elements of Appendix G is set forth below.

#### GENERAL INFORMATION

Project Title:	Negative Declaration for Proposed New Regulation 6: Particulate Matter – Common Definitions and Test Methods, Proposed Amendments to Rule 6-1, General Requirements, and Proposed New Rule 6-6, Prohibition of Trackout
Lead Agency Name:	Bay Area Air Quality Management District
Lead Agency Address:	375 Beale Street, Suite 600 San Francisco, California 94105
Contact Person:	Guy Gimlen
Contact Phone Number:	415-749-4734
Project Location:	The proposed new Regulation 6, proposed amendments to Rule 6-1 and new Rule 6-6 apply to the area within the jurisdiction of the Bay Area Air Quality Management District, which encompasses all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa

	Clara, and Napa Counties and portions of southwestern Solano County and southern Sonoma County.
Project Sponsor’s Name:	Bay Area Air Quality Management District
Project Sponsor’s Address:	375 Beale Street, Suite 600 San Francisco, California 94105
General Plan Designation:	Regulation 6 applies to the area within the jurisdiction of the Bay Area Air Quality Management and would encompass all general plan designations within the Bay Area.
Zoning:	Regulation 6 applies to the area within the jurisdiction of the Bay Area Air Quality Management and would encompass all types of zoning within the Bay Area.
Description of Project:	See Chapter 2.
Surrounding Land Uses and Setting:	See “Affected Area” in Chapter 2.
Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?	No tribes have requested consultation.

**SUMMARY CHECKLIST – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. Impact areas in which the proposed project may have a significant impact are marked with a “✓”. An explanation supporting the determination of significant impacts can be found in the Detailed Checklist and Discussion section below.

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                 |
| <input type="checkbox"/> Biological Resources               | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology / Soils             |
| <input type="checkbox"/> Greenhouse Gas Emissions           | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality   |
| <input type="checkbox"/> Land Use / Planning                | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                       |
| <input type="checkbox"/> Population / Housing               | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                  |
| <input type="checkbox"/> Transportation / Traffic           | <input type="checkbox"/> Tribal Cultural Resources          | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance |   |  |

## DETERMINATION

On the basis of this initial evaluation:

- I find the proposed project COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Victor Douglas  
Rule Development Manager  
Bay Area Air Quality Management District

**EVALUATION OF ENVIRONMENTAL IMPACTS:**

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This checklist is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

**ENVIRONMENTAL CHECKLIST AND DISCUSSION**

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
<b>I. AESTHETICS.</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting**

The Bay Area Air Quality Management District covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano County and southern Sonoma County. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. Important views of natural features include the Pacific Coast and ocean, San Francisco Bay, Mount Tamalpais, Mount Diablo, and other peaks and inland valleys of the Coast Range. Enclosed views like those along roads winding through redwood groves, and broader views of the ocean and lowlands, such as along ridgelines, are in abundance in the Bay Area. Cityscape views offered by buildings and distinctive Bay Area bridges are also important built visual resources to the region (ABAG, 2013). Because of the variety of visual resources, scenic highways or corridors are located throughout the Bay Area and includes 15 routes that have been designated as scenic highways and 29 routes eligible for designation as scenic highways (ABAG, 2013).

The proposed two new rules and amendments to Rule 6-1 will affect stationary sources with fugitive PM emissions in the Bay Area. Some of these sources are located in industrial areas (e.g., bulk material storage and handling facilities). Large disturbed surface sites (e.g., landfills) would also tend to be located within industrial areas. Large construction sites that would be affected by Rule 6-6 and required to prevent trackout onto paved roadways could be located in various land uses throughout the Bay Area. Scenic highways or corridors are generally not located in industrial areas.

## Regulatory Background

Visual resources are generally protected by the city and/or county general plans through land use and zoning requirements.

## Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

## Discussion

**I a-d.** The proposed new rules and rule amendments to Rule 6-1 are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required to install air pollution control equipment at bulk storage and handling facilities. Air pollution control equipment may include windscreens, enclosures, shrouds, and water mist/fog systems. The construction of air pollution control equipment would occur in existing industrial areas. This equipment would be compatible with the existing industrial character of the area and would not be expected to exceed the heights of existing equipment at existing facilities.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

For windscreens to be effective, they need to be as high as the bulk material handling operation or stockpile that it protects. Therefore, implementation of the amendments to Rule 6-1 may result in the construction of windscreens and structures that would be visible to adjacent land uses. However, bulk material storage and handling facilities are located in industrial areas. Scenic highways or corridors are generally not located in industrial areas and windscreens and structures would not be expected to block any scenic views and vistas.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures that could block scenic views and vistas. Trackout prevention at construction sites is currently required as part of Storm Water Pollution Prevention Plan (SWPPP). Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have

visual impacts, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no visual impact.

Therefore, the proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 are not expected to impact scenic resources or vistas or degrade the existing visual character of any site or its surroundings. Similarly, the proposed rule and rule amendments are not expected to require any new lighting. The existing facilities that may be impacted by the proposed new Rule 6-6 and amendments to Rule 6-1 are currently operating and lit for nighttime work, if necessary, and no additional light or glare is expected to be added to impact day or nighttime views in the District.

## **Conclusion**

Based upon these considerations, no significant adverse aesthetic or light and glare impacts are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**II. AGRICULTURE and FORESTRY RESOURCES.** Would the project:

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? |                          |                          |                          |                                     |
| d) | Result in the loss of forest land or conversion of forest land to non-forest use?   |                          |                          |                          |                                     |
| e) | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Setting**

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. Some of these agricultural lands are under Williamson Act contracts. Agricultural land under Williamson Act contract includes both prime and nonprime lands. Prime agricultural land includes land with certain specific soil characteristics, land that has returned a predetermined annual gross value for three of the past five years, livestock-supporting land with specific carrying capacities, or land planted with fruit or nut trees, vines, bushes or crops that have a non-bearing period of less than five years (Government Code §51200-51207). Nonprime lands include pasture and grazing lands and other non-irrigated agricultural lands with lesser soil quality.

The Bay Area has a significant amount of land in agricultural uses. In 2010, just over half of the region's approximately 4.5 million acres were classified as agricultural lands, as defined by the California Department of Conservation Farmland Mapping and Monitoring Program. Of these 2.3 million acres of agricultural land, over 70 percent (about 1.7 million acres) are used for grazing. Products grown in the Bay Area include field crops, fruit and nut crops, seed crops, vegetable crops, and nursery products. Field crops, which include corn, wheat, and oats, as well as pasture lands, represent approximately 63 percent of the Bay Area agricultural land (ABAG, 2013). In 2006, about 1.2 million acres of land were under Williamson Act contract in the Bay Area. Of this, about 203,000 acres were prime farmland and one million acres were nonprime. Lands under Williamson Act contract are primarily used for pasture and grazing and not for cultivation of crops. Nearly 70 percent of prime and nonprime lands under contract are in Santa Clara, Solano, and Sonoma counties (ABAG, 2013).

Proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 will affect stationary sources with fugitive PM emissions in the Bay Area. Some of these sources are located in industrial areas (e.g., wastewater treatment plants and bulk material storage and handling facilities). Large disturbed surface sites (e.g., landfills) also tend to be located within industrial areas. Large construction sites that would be affected by Rule 6-6 and required to prevent trackout onto paved roadways could be located in various land uses throughout the Bay Area.

## Regulatory Background

Agricultural and forest resources are generally protected by the city and/or county general plans, community plans through land use and zoning requirements, as well as any applicable specific plans, ordinances, local coastal plans, and redevelopment plans.

## Significance Criteria

Project-related impacts on agriculture and forest resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104 (g)).
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

## Discussion of Impacts

**II a-e.** The proposed new Regulation 6, Rule 6-1 amendments and new Rule 6-6 are designed to minimize fugitive dust emissions from industrial sources, disturbed surface sites, and construction sites. Windscreens, enclosures, shrouds, and water mist/fog systems may be constructed at bulk material storage and handling facilities (e.g., petroleum coke and coal facilities) which are located within industrial areas. The construction of additional air pollution control equipment would occur in existing industrial areas and adjacent to existing industrial equipment. This equipment would be compatible with the existing industrial character of the area and would not be located in agricultural or forestland areas.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures that would affect agricultural resources. Trackout prevention at construction sites is currently required as part of SWPPPs. Construction activities associated with new development would be better regulated and enforced under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have agricultural impacts, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no agricultural impacts

The proposed project would not conflict with existing agriculture related zoning designations or Williamson Act contracts. Existing agriculture and forest resources within the boundaries of the Air District are not expected to be affected by the construction of enclosures, windscreens, shrouds, and water mist/fog systems within industrial areas or better enforcement of SWPPP requirements. Therefore, there is no potential for conversion of farmland to non-agricultural use or conflicts related to agricultural uses or land under a Williamson Act contract, or impacts to forestland resources.

## Conclusion

Based upon these considerations, no significant adverse impacts to agricultural and forest resources are expected from the adoption of the proposed new Regulation 6, proposed amendments to Rule 6-1 or proposed new Rule 6-6.

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	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**III. AIR QUALITY.** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute to an existing or projected air quality violation?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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## Setting

The San Francisco Bay Area is characterized by a large, shallow basin surrounded by mountain ranges tapering into sheltered inland valleys. The basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of mountains, valleys and bays. Combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast.

For purposes of analyzing air quality impacts under CEQA, the Air District divides air quality concerns into two categories: regional concerns and localized concerns. Regional concerns involve emissions from many sources throughout the region that combine together to create unhealthy air quality regionally. These air quality concerns are addressed by ensuring that individual emissions sources do not add significantly to the Bay Area’s regional air quality challenges. Localized concerns, by contrast, involve emissions that may affect people who live or work near the emissions source and may be exposed to elevated pollutant concentrations because of the source. These localized air quality concerns are addressed by evaluating the potential health effects on people located nearby (called “sensitive receptors”) and ensuring that they will not be exposed to any significant health risks. (Note that in some cases, a particular pollutant may fall into both categories. This is the case with fine particulate matter, for example. In these cases, impacts associated with that pollutant are evaluated in both a regional and a localized context.)

## **Regional Air Quality**

Regional air quality concerns are addressed by ambient air quality standards adopted by California Air Resources Board (CARB) and the U.S. EPA. These standards set forth the maximum allowable concentrations of “criteria” pollutants in the ambient air throughout the region that are considered safe to breathe. These pollutants are called “criteria” pollutants because the standards are established by developing human-health based or environmentally-based “criteria” – i.e., science-based guidelines – for setting permissible ambient air pollutant concentrations.

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for the following criteria pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), particulate matter less than 10 microns in diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. California has also established standards for these pollutants, as well as for sulfate, visibility, hydrogen sulfide, and vinyl chloride. The state and national ambient air quality standards for each of these pollutants, and their effects on health, are summarized in Table 3-1.

Air quality conditions in the San Francisco Bay Area have improved greatly since the Air District was created in 1955, and regional concentrations of criteria pollutants are now in compliance with or near compliance with most ambient air quality standards. The only criteria pollutants for which the Bay Area still exceeds any state or federal standards are ozone and particulate matter.

### Ozone

For ozone, there are two types of standards, one measuring average ozone concentrations over eight-hour periods and the other measuring average ozone concentrations over one-hour periods.

For eight-hour average ozone concentrations, the Bay Area is marginally out of compliance with the most stringent state and federal standards, which are both 0.070 parts per million (ppm). The region has made substantial progress towards attaining these standards, and has recently attained the 2008 federal standard, which is 0.075 ppm. [*Determinations of Attainment by the Attainment Date etc.*, 81 Fed. Reg. 26697, 26698 (May 4, 2016)]. The region has also greatly reduced the number of days each year when ozone levels exceed the current 0.070 ppm standards, as shown in Figure 3-1. The region has not quite met the 0.070 ppm standards, however, and is designated as “non-attainment” for both the state and federal ozone standards.

For one-hour average ozone concentrations, the situation is similar. Ozone levels have been coming down and the number of days each year with air quality exceeding the one-hour standard has been greatly reduced, as shown in Figure 3-2. But the region is still designated as “non-attainment” for the California one-hour-average ozone standard. (The federal one-hour-average standard has been revoked and replaced by the eight-hour-average standard.)

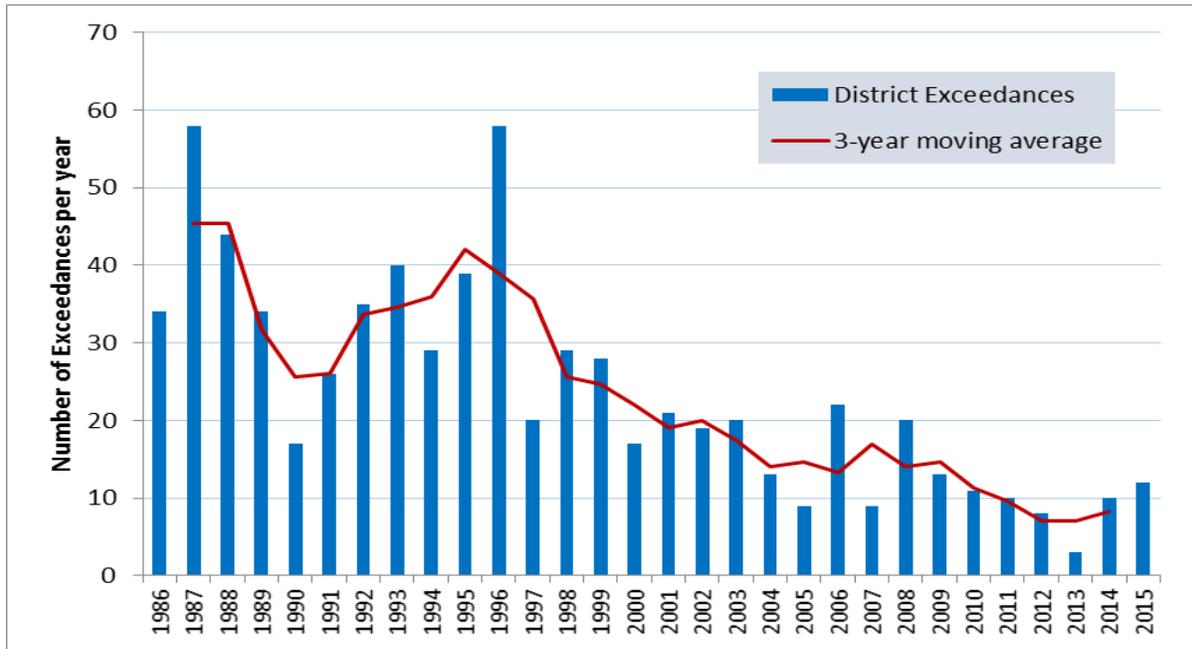
**TABLE 3-1  
State and Federal Ambient Air Quality Standards**

POLLUTANT	STATE STANDARD	FEDERAL STANDARD	MOST RELEVANT EFFECTS
Ozone	0.09 ppm, 1-hr. avg. 0.070 ppm, 8-hr	No Federal 1-hr standard 0.070 ppm, 8-hr avg.	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage
Carbon Monoxide	9.0 ppm, 8-hr avg. 20 ppm, 1-hr avg.	9 ppm, 8-hr avg. 35 ppm, 1-hr avg.	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.03 ppm, annual avg. 0.18 ppm, 1-hr avg. >	0.053 ppm, ann. avg. 0.100 ppm, 1-hr avg.	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg.> 0.25 ppm, 1-hr. avg. >	No Federal 24-hr Standard 0.075 ppm, 1-hr avg.	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM <sub>10</sub> )	20 µg/m <sup>3</sup> , annual arithmetic mean 50 µg/m <sup>3</sup> , 24-hr average	No Federal Annual Standard 150 µg/m <sup>3</sup> , 24-hr avg.	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Suspended Particulate Matter (PM <sub>2.5</sub> )	12 µg/m <sup>3</sup> , annual arithmetic mean No State 24-hr Standard	12 µg/m <sup>3</sup> , annual arithmetic mean 35 µg/m <sup>3</sup> , 24-hour average	Decreased lung function from exposures and exacerbation of symptoms in sensitive patients with respiratory disease; elderly; children.
Sulfates	25 µg/m <sup>3</sup> , 24-hr avg.	No Federal Standard	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead	1.5 µg/m <sup>3</sup> , 30-day avg. No State Calendar Quarter Standard No State 3-Month Rolling Avg. Standard	No Federal 30-day avg. Standard 1.5 µg/m <sup>3</sup> , calendar quarter 0.15 µg/m <sup>3</sup> 3-Month Rolling average	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to give an extinction coefficient >0.23 inverse kilometers (visual range to less than 10 miles) with relative humidity less than 70%, 8-hour average (10am – 6pm)	No Federal Standard	Visibility based standard, not a health based standard. Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent

Particulate Matter

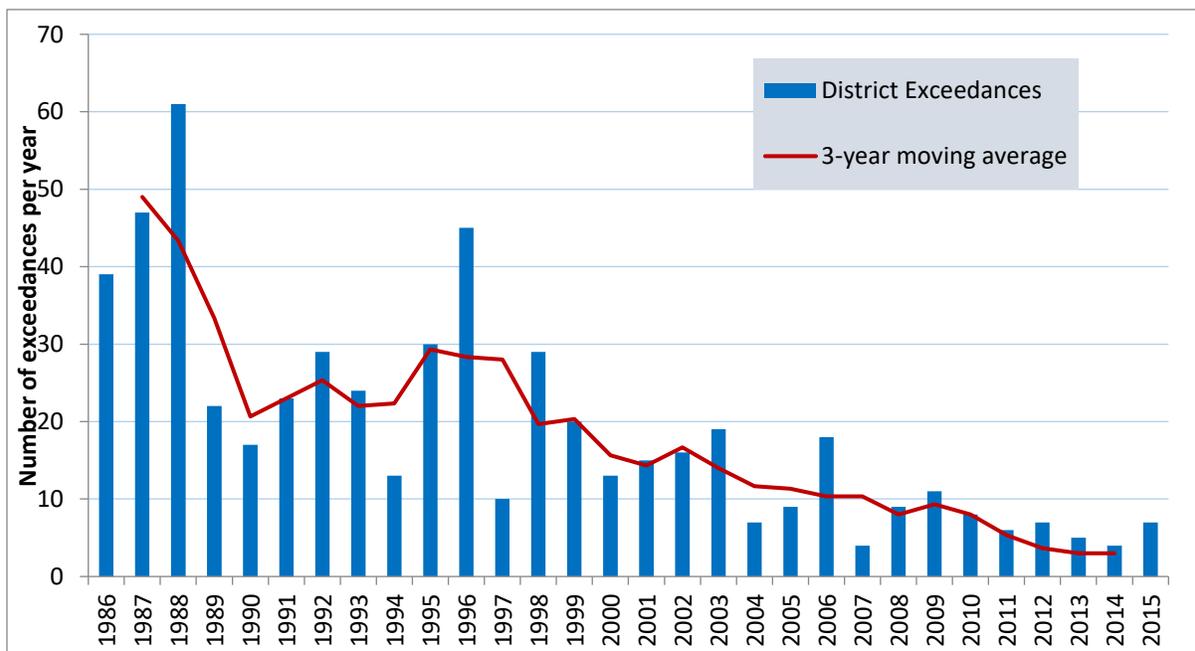
For particulate matter, ambient air quality standards have been established for both PM<sub>10</sub> and PM<sub>2.5</sub>. California has standards for average PM<sub>10</sub> concentrations over 24-hour periods and over the course of an entire year, which are 50 and 20 µg/m<sup>3</sup>, respectively. (The notation “µg/m<sup>3</sup>” means micrograms of pollutant per cubic meter of ambient air.) For PM<sub>2.5</sub>, California only has a standard for average PM<sub>2.5</sub> concentrations over a year, set at 12 µg/m<sup>3</sup>, with no 24-hour-average standard. Conversely, the U.S. EPA has established federal PM<sub>2.5</sub> standards for both annual-average and 24-hour-average concentrations, but only has a 24-hour-average standard for PM<sub>10</sub>. The federal standards are 12 µg/m<sup>3</sup> for annual-average PM<sub>2.5</sub>, 35 µg/m<sup>3</sup> for 24-hour-average PM<sub>2.5</sub>, and 20 µg/m<sup>3</sup> for annual-average PM<sub>10</sub> (the same as the California standard).

**FIGURE 3-1**  
**Annual Bay Area Days Exceeding 0.070 ppm State 8-hour Ozone Standard, 1986-2015**



Source: BAAQMD, 2017

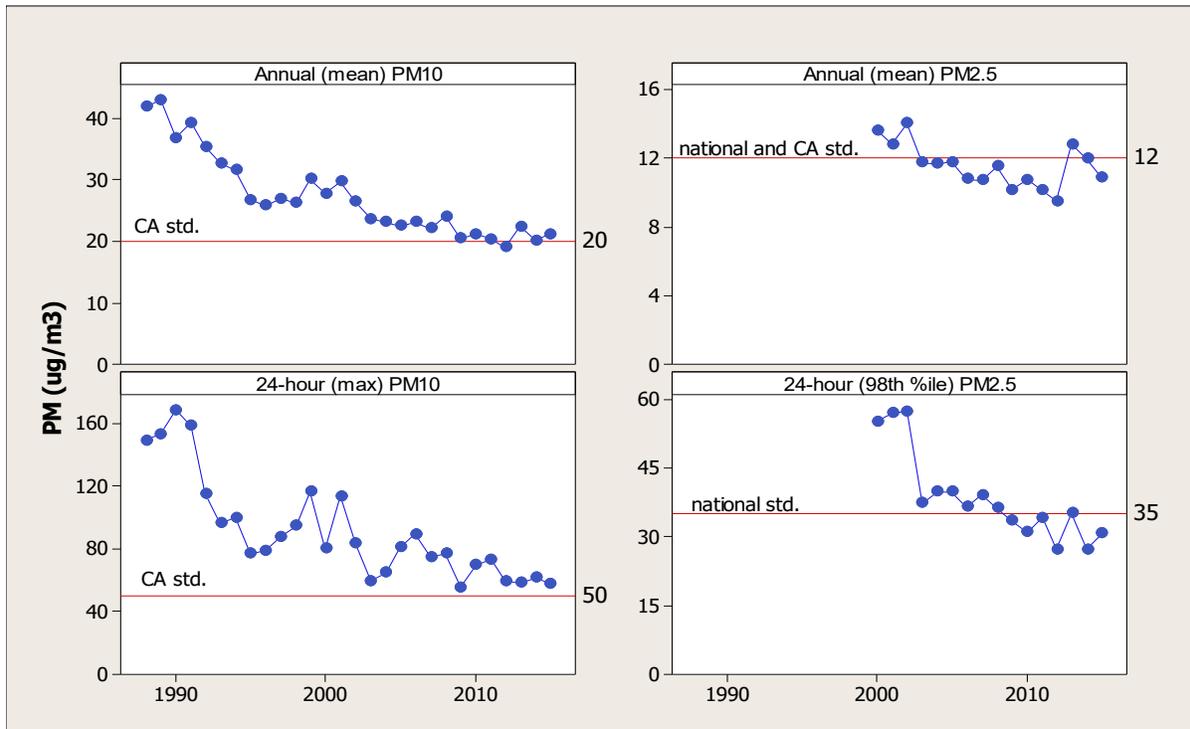
**FIGURE 3-2**  
**Annual Bay Area Days Exceeding 0.09 ppm State 1-hour Ozone Standard, 1986-2015**



Source: BAAQMD, 2017

The Bay Area is in compliance with all of the federal particulate matter standards;<sup>1</sup> but it is out of compliance with the state standards. As with ozone, however, the region has made significant progress in reducing particulate matter concentrations and in approaching compliance with all applicable standards. Figure 3-3 shows regional particulate matter concentrations for both PM<sub>10</sub> and PM<sub>2.5</sub>, relative to the applicable California and national standards.

**FIGURE 3-3: Bay Area PM Trends Relative to National and California Standards**



Source: BAAQMD, 2017

To show how criteria pollutant concentrations vary across the region, Table 3-2 provides a summary of the highest recorded concentrations of the principal criteria pollutants at each of the 25 air quality monitoring sites throughout the Bay Area. For each site, the table shows the highest concentration observed during 2015, the most recent year for which full data are available, along with the number of days during the year on which the concentration exceeded the relevant air quality standard at that location.

<sup>1</sup> The Bay Area is still administratively designated as “non-attainment” for the federal 24-hour PM<sub>2.5</sub> standard. However, EPA has determined that actual PM<sub>2.5</sub> concentrations throughout the region have met the standard as a matter of fact. Thus, the air in the Bay Area is in compliance with the standard, even though the region is still designated as a “non-attainment” area. (*Determination of Attainment for the San Francisco Bay Area Nonattainment Area for the 2006 Fine Particle Standard*, Final Rule, 78 Fed. Reg. 1760 (Jan. 9, 2013).)

**TABLE 3-2**  
**Summary of Maximum Observed Air Pollution Concentrations and Days with Exceedances, 2015**

MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE				SULFUR DIOXIDE				PM <sub>10</sub>				PM <sub>2.5</sub>				
	Max 1-hr	Cal 1-hr Days	Max 8-hr	Nat 8-Hr Days	Cal 8-hr Days	3-Yr Avg	Max 1-hr	Max 8-hr	Nat/ Cal Days	Max 1-Hr	Ann Avg	Nat 8-hr Days	Cal 8-hr Days	Max 1-hr	Max 24-hr	Nat 1-Hr Days	Cal 24-hr Days	Ann Avg	Max 24-hr	Nat Days	Cal Days	Max 24-hr	Nat 24-hr Days	3-Yr Avg	Ann Avg	3-Yr Avg
<b>North Counties</b>	(ppb)						(ppm)			(ppb)				(ppb)				(µg/m <sup>3</sup> )				(µg/m <sup>3</sup> )				
Napa*	79	0	69	0	0	61	3.3	1.6	0	43	8	0	0	-	-	-	-	18.6	50	0	0	38.2	1	27	10.6	11.4
San Rafael	81	0	70	0	0	61	1.4	0.9	0	44	11	0	0	-	-	-	-	16.1	42	0	0	36.3	2	26	8.6	10.0
Sebastopol*	68	0	62	0	0	*	1.3	0.9	0	37	5	0	0	-	-	-	-	-	-	-	-	29.9	0	*	6.8	*
Vallejo	85	0	70	0	1	61	2.4	1.9	0	44	8	0	0	5	1.7	0	0	-	-	-	-	41.4	3	29	9.6	9.8
<b>Coast/Central Bay</b>																										
Laney College Fwy*	-	-	-	-	-	-	2.7	1.6	0	106	18	1	0	-	-	-	-	-	-	-	-	37.2	1	*	10.0	*
Oakland	94	0	74	2	2	52	2.4	1.4	0	48	11	0	0	-	-	-	-	-	-	-	-	44.7	1	25	8.3	9.1
Oakland-West*	91	0	64	0	0	49	4.7	2.6	0	57	14	0	0	21.6	3.9	0	0	-	-	-	-	38.7	3	29	10.2	10.8
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	-	12	2.8	0	0	-	-	-	-	-	-	-	-	-
San Francisco	85	0	67	0	0	48	1.8	1.3	0	71	12	0	0	-	-	-	-	19.2	47	0	0	35.4	0	25	7.6	8.4
San Pablo*	84	0	62	0	0	55	2	1.1	0	46	9	0	0	10.7	2.4	0	0	18.6	43	0	0	33.2	0	27	8.9	10.5
<b>Eastern District</b>																										
Bethel Island	80	0	72	1	2	66	1.1	0.9	0	29	5	0	0	8.8	1.9	0	0	13.6	33	0	0	-	-	-	-	-
Concord	88	0	73	2	4	64	1.4	1.3	0	33	7	0	0	6.7	2	0	0	13.1	24	0	0	31	0	23	8.8	7.7
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	-	20.5	3.7	0	0	-	-	-	-	-	-	-	-	-
Fairfield	84	0	72	1	1	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livermore	105	1	81	7	7	73	-	-	-	50	10	0	0	-	-	-	-	-	-	-	-	31.1	0	28	8.8	8.2
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	-	14.7	4.8	0	0	-	-	-	-	-	-	-	-	-
Patterson Pass	99	4	82	5	6	*	-	-	-	19	3	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-
San Ramon	106	1	84	6	6	70	-	-	-	37	6	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>South Central Bay</b>																										
Hayward	103	2	84	2	2	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redwood City	86	0	71	1	1	59	3.4	1.6	0	48	11	0	0	-	-	-	-	-	-	-	-	34.6	0	24	5.7	7.8
<b>Santa Clara Valley</b>																										
Gilroy	95	1	78	3	3	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42.2	2	18	7.2	7.5
Los Gatos	100	1	84	4	5	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose	94	0	81	2	2	63	2.4	1.8	0	49	13	0	0	3.1	1.1	0	0	22	58	0	1	49.4	2	30	10.0	10.2
San Jose Freeway*	-	-	-	-	-	-	2.7	2	0	61	18	0	0	-	-	-	-	-	-	-	-	46.9	1	*	8.4	*
San Martin	98	1	83	4	4	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Days over Standard</b>		<b>7</b>		<b>12</b>	<b>12</b>				<b>0</b>		<b>1</b>	<b>0</b>			<b>0</b>	<b>0</b>				<b>0</b>	<b>1</b>		<b>9</b>			

\*Air monitoring at Sebastopol began in January 2014. Therefore, 3-year average statistics for ozone and PM<sub>2.5</sub> are not available. The Sebastopol site replaced the Santa Rosa site which closed on December 13, 2013.

Ozone monitoring using the federally accepted method began at Patterson Pass on April 1, 2015. Therefore, 3-year average ozone statistics are not available.

Near-road air monitoring at Laney College Freeway began in February 2014. Therefore, 3-year average PM<sub>2.5</sub> statistics are not available.

Near-road air monitoring at San Jose Freeway began in September 2014. Therefore, 3-year average PM<sub>2.5</sub> statistics are not available.

ppb = parts per billion; ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter

### Localized Air Quality Concerns

Localized air quality concerns are addressed by evaluating the potential for adverse health impacts to sensitive receptors that may be located near an emissions source. Local air quality concerns are driven by so-called toxic air contaminants (TACs), along with PM<sub>2.5</sub>.

#### Toxic Air Contaminants

TACs are chemicals that can be hazardous even at relatively low levels, and so they can present a concern for any sensitive receptors that may be located near to where they are emitted. A full list of the TACs of concern in the Bay Area can be found in Table 2-5-1 in Air District Regulation 2, Rule 5. (Federal regulations use the term hazardous air pollutants, or “HAPs,” which covers essentially the same universe of air pollutants.)

The Air District measures concentrations of the most important TACs at each of its 25 monitoring sites throughout the Bay Area. Table 3-3 lists the maximum concentrations observed at any of the monitors in 2014, the most recent year for which data are available, as well as the mean (arithmetic average) for the entire year. Table 3-4 summarizes the mean TAC concentrations observed at each individual monitoring location in 2014.

**TABLE 3-3**  
**Summary of 2014 Air Toxics Monitoring Data**

<b>Compound</b>	<b>Maximum Observed Concentration (ppb)</b>	<b>Mean Concentration (ppb)</b>
1,3-Butadiene	0.375	0.0439
Acetaldehyde	5.83	1.11
Acrolein	2	0.205
Benzene	28.1	0.594
Carbon Tetrachloride	0.149	0.0962
Chloroform	0.109	0.0273
Dichloromethane	1.62	0.226
Ethylbenzene	11	0.262
Ethylene Dibromide	0	0
Ethylene Dichloride	0.014	0.0000768
Formaldehyde	6.18	2.07
Methyl Chloroform	2.61	0.019
Naphthalene	272	59.7
N-Hexane	17.3	0.668
Styrene	7.03	0.131
Tetrachloroethylene	0.312	0.0143
Toluene	82.4	1.78
Trichloroethylene	0.222	0.00457
Vinyl Chloride	0.021	0.0000366
m/p-Xylene	29.9	0.982
O-Xylene	10	0.368

Source: BAAQMD, 2016

PM<sub>2.5</sub>

In addition to TACs, local air quality concerns are also driven by PM<sub>2.5</sub>. PM<sub>2.5</sub> is not formally identified as a TAC, but it nevertheless has respiratory, cardiovascular health impacts. A specific type of PM<sub>2.5</sub> called diesel PM, is a component of diesel exhaust, which IARC (International Agency for Research on Cancer), determined to be carcinogenic to humans. Thus, in addition to being a criteria pollutant subject to national and state air quality standards, PM<sub>2.5</sub> is also an important local air pollution concern. If there are sensitive receptors located nearby to a large PM<sub>2.5</sub> emissions source – especially if it is diesel PM – then those receptors could be exposed to significant health risks locally, even if the emissions do not result in concentrations exceeding the ambient air quality standards. Current trends in PM<sub>2.5</sub> levels in the Bay Area are discussed above in connection with criteria pollutants. (See Figure 3-3 and Table 3-2.) While the Air District does not have direct measurements of diesel PM, measurements of black carbon, which is sometimes correlated with diesel PM, are made at a few sites throughout the Bay Area. Table 3-3A lists data from these monitors in 2015.

**TABLE 3-3A  
Summary of 2015 Black Carbon Monitoring Data**

2015

<b>Station</b>	<b>Maximum 1-hr Concentration (µg/m<sup>3</sup>)</b>	<b>Maximum 24-hr Concentration (µg/m<sup>3</sup>)</b>	<b>Annual Mean Concentration (µg/m<sup>3</sup>)</b>
Laney College	41.162	6.790	1.433
Livermore	20.863	2.914	0.783
Forest Knolls	24.507	7.062	1.078
Oakland West	8.111	4.446	0.778
San Jose - Knox	9.535	4.505	1.090

**TABLE 3-4**  
**Mean Concentrations of Toxic Air Contaminants in the Bay Area in 2014 (ppb)**

Monitoring Station	BENZ	CCl <sub>4</sub>	CHCl <sub>3</sub>	DCM	EBZ	EDB	EDC	PERC	TCE	TOL	VC
Bethel Island	0.117	0.0982	0.0207	0.194	0.0266	0	0.000483	0.00279	0.00128	0.205	0
Concord - Treat Blvd	0.145	0.0933	0.0334	0.195	0.0409	0	0	0.00847	0.000867	0.227	0
Crockett - Kendall Ave	0.0972	0.0954	0.0171	0.204	0.0218	0	0	0.0128	0.000367	0.136	0
Ft. Cronkhite Building 1111	0.0719	0.0929	0.0153	0.175	0.0211	0	0	0.00221	0	0.15	0
Laney College	0.21	0.0943	0.0235	0.208	0.0719	0	0	0.0085	0	0.545	0
Livermore - Rincon Ave.	0.814	0.0976	0.031	0.246	0.459	0	0	0.0204	0	2.84	0
Martinez - Jones St	0.135	0.0952	0.018	0.212	0.042	0	0	0.00272	0	0.252	0
Napa - Jefferson St	0.222	0.0989	0.0401	0.269	0.0772	0	0	0.00876	0.00193	0.505	0
Oakland - International	0.251	0.103	0.0332	0.217	0.0969	0	0	0.0164	0.00847	0.612	0
Oakland West	0.215	0.102	0.0295	0.257	0.0914	0	0	0.0134	0.00473	0.536	0
Patterson Pass - PAMS	0.373	NA	NA	NA	0.106	NA	NA	NA	NA	0.713	NA
Redwood City	0.278	0.0983	0.047	0.284	0.194	0	0.000429	0.015	0.0498	0.858	0.00075
Richmond - 7th St	0.135	0.0982	0.0267	0.231	0.0573	0	0	0.0038	0.000333	0.309	0
San Francisco - Arkansas St.	0.189	0.0918	0.025	0.164	0.0907	0	0	0.00867	0.00536	0.378	0
San Jose - Jackson St.	0.253	0.0972	0.0306	0.281	0.121	0	0.000167	0.0493	0.00391	0.664	0
San Jose - Knox Av	0.362	0.0971	0.0305	0.23	0.146	0	0	0.00523	0	0.943	0
San Pablo - Rumrill	0.166	0.0941	0.0256	0.269	0.0674	0	0	0.0031	0	0.412	0
San Rafael	0.164	0.0953	0.023	0.188	0.0469	0	0	0.0123	0.00561	0.433	0
San Ramon	0.62	NA	NA	NA	0.225	NA	NA	NA	NA	1.84	NA
Sebastopol	0.146	0.0922	0.0213	0.23	0.0497	0	0.000138	0.00272	0.00341	0.296	0
Vallejo - Tuolumne St.	0.166	0.0951	0.0262	0.202	0.059	0	0.000143	0.00475	0.000321	0.387	0

(1) BENZ = benzene, CCl<sub>4</sub> = carbon tetrachloride, CHCl<sub>3</sub> = chloroform, DCM = methylene chloride, EBZ = ethyl benzene EDB = ethylene dibromide, EDC = ethylene dichloride, PERC = perchloroethylene, TCE = trichloroethylene, TOL = toluene, and VC = vinyl chloride. NA = Not available.

Source: BAAQMD, 2016.

### PM<sub>2.5</sub>

In addition to TACs, local air quality concerns are also driven by PM<sub>2.5</sub>. PM<sub>2.5</sub> is not formally identified as a TAC, but it nevertheless has toxic health impacts – especially in the form of diesel PM emitted from heavy-duty trucks and other diesel-powered equipment. Thus, in addition to being a criteria pollutant subject to regional air quality standards, it is also an important local air pollution concern. If there are sensitive receptors located nearby to a large PM<sub>2.5</sub> emissions source – especially if it is diesel PM – then those receptors could be exposed to significant health risks locally, even if the emissions do not result in concentrations exceeding the regional ambient air quality standards. Current trends in PM<sub>2.5</sub> levels in the Bay Area are discussed above in connection with criteria pollutants. (See Figure 3-3 and Table 3-2.)

### Assessing Health Risks

Health risk from exposure to these air pollutants is measured in two ways, one addressing carcinogenic health effects and one addressing non-carcinogenic health effects.

- *Non-Carcinogenic Health Effects*

For health problems other than cancer – i.e., non-carcinogenic health effects – exposure of a sensitive receptor to TACs is measured against established “Reference Exposure Levels,” which are levels that have been set by the California Office of Environmental Health Hazard Assessment (OEHHA). OEHHA sets these Reference Exposure Levels based on scientific and medical evidence showing that exposures below these levels do not result in adverse health impacts. The Reference Exposure Levels also have built-in margins of safety to ensure that exposures below those levels are indeed safe. Table 2-5-1 in Air District Regulation 2, Rule 5 lists the various Reference Exposure Levels that have been established for each TAC.

Health impacts from exposure to TACs are assessed by comparing the measured or modeled exposure of sensitive receptors near an emissions source to the applicable Reference Exposure Level to calculate a “Hazard Index”, which is the ratio of the sensitive receptor’s exposure to the Reference Exposure Level. Thus, if the sensitive receptor is exposed at half the Reference Exposure Level, the Hazard Index is 0.5; if the exposure is at exactly the Reference Exposure Level, the Hazard Index is 1; if the exposure is twice the Reference Exposure Level, the Hazard Index is 2; etc. Where the sensitive receptor may be exposed to multiple TACs, an individual Hazard Index calculation is undertaken for each individual TAC, and then the results are summed to give a total Hazard Index that is used to assess the total risk to the sensitive receptor for non-carcinogenic health impacts.

This Hazard Index approach is used for both short-term (“acute”) and long-term (“chronic”) toxic health impact concerns. It is important to consider both acute and chronic health impacts, because there could be situations where exposure levels are low enough that they do not cause any immediate health problems, but the exposure continues for a long period of time and creates health risks that way. Conversely, there could be situations where the receptor is exposed only for a short period of time, but at levels high enough to cause acute health problems. Health risk assessments, therefore, typically calculate a Hazard Index for both acute risk and chronic risk. If the Hazard Index is below 1 for both acute and chronic risk, that is an indication that the exposure does not

present any health concerns. If the Hazard Index is above 1 for either acute or chronic risk, that is an indication that the exposure is in the range where one could potentially start to observe adverse health outcomes.

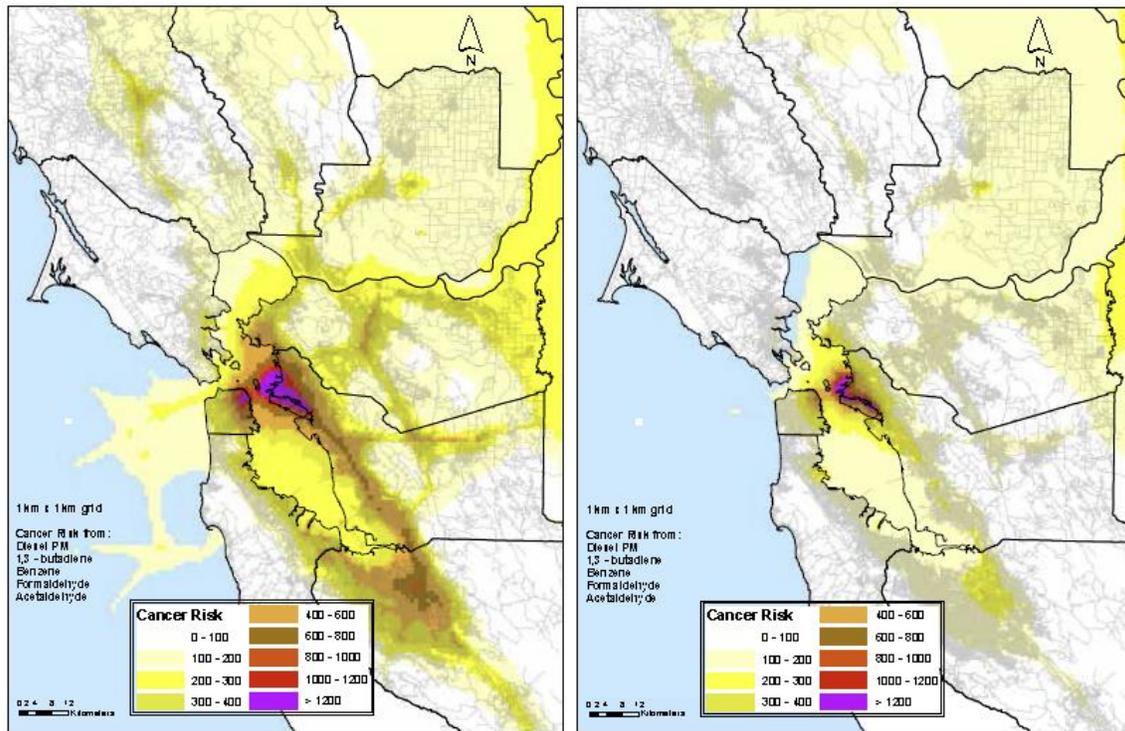
The chronic and acute Hazard Index is typically below 1 at most locations throughout the Bay Area, meaning that existing background TAC levels are not expected to cause any observable non-carcinogenic health effects. But there is always a concern with new sources of TAC emissions that they could expose sensitive receptors to TAC concentrations that would increase the Hazard Index above 1. The Air District addresses this concern by conducting health risk assessments of new TAC emissions, as well as applying other regulatory requirements as discussed in more detail below.

- *Carcinogenic Health Effects*

For air pollutants that cause cancer – i.e., carcinogenic health effects – there is no “safe” exposure level below which there will not be any cancer-causing effect. With carcinogenic effects, lowering the exposure level reduces the probability of developing cancer, but there is no level of exposure below which the risk falls completely to zero. Carcinogenic effects are therefore evaluated by assessing the additional risk that a sensitive receptor will develop cancer as a result of exposure to the air pollutant if they are exposed over their entire lifetime (assumed to be 70 years). The risk level is expressed as the number of additional cancers that would be expected out of a population of one million people exposed to an air pollutant at a given level for 70 years.

Existing carcinogenic risk from TACs varies throughout the Bay Area. Air District staff have used computer models to assess the respective carcinogenic risk at different locations, taking into account TAC emissions as well as particulate matter. Specifically, Air District staff modeled the carcinogenic risk from emissions of the four highest-risk TACs plus diesel PM. Figure 3-4 shows the results of this evaluation. Areas with lower risk are identified by lighter coloring, which corresponds to exposure levels that would be expected to cause around 100 or 200 additional cancers if one million people were exposed to that level for 70 years. Areas with higher risk identified by darker coloring, which corresponds to exposure levels that would be expected to cause 1,000 or more additional cancers if one million people were exposed to that level for 70 years. These areas are predominantly located in highly developed dense urbanized areas near high-volume roadways and other sources of diesel PM.

**FIGURE 3-4: Potential Cancer Risk from Toxic Air Contaminants for the Bay Area in 2005 (left) and 2015 (right)**



Source: BAAQMD, 2014

## Regulatory Background

### Criteria Pollutants

Criteria pollutants are regulated using a planning approach, in which the Air District develops regional plans to attain and maintain the various state and federal ambient air quality standards. These regional clean air plans identify the extent of the air quality challenges in the region and the amount of emission reductions that will be necessary to bring air pollution down to below the applicable air quality standards, and they outline various measures that the Air District and other authorities will implement in order to obtain those reductions. These measures can include adopting mandatory regulations that will force individual facilities to reduce emissions from specific types of equipment, as well as voluntary programs in which the Air District or other agencies offer incentives to businesses and individuals reduce their emissions, among other types of measures. Once the Air District has adopted a plan, it then goes forward to implement the plan and obtain the emission reductions and associated air quality improvements. The Air District adopted its most recent Clean Air Plan, entitled *Spare the Air, Cool the Climate*, in April 2017.

The Air District is required to implement this planning effort to attain and maintain the applicable ambient air quality standards under both federal and California law. The federal Clean Air Act requires the Air District to adopt plans aimed at attaining and maintaining the federal National Ambient Air Quality Standards, which the Air District must submit (through CARB) for review

and approval by the U.S. EPA. The California Clean Air Act imposes similar requirements, but they are aimed at attaining and maintaining the California standards.

Once the Air District has adopted these plans, it implements them by adopting regulations and taking other steps as outlined in the plans. The Air District uses its authority under Health & Safety Code sections 40001, 40702, and 40910 *et seq.*, as well as other statutory provisions, to adopt regulations requiring stationary sources to take certain measures to limit their emissions. These regulations can be found on the Air District's rulebook at [www.baaqmd.gov/rules-and-compliance/current-rules](http://www.baaqmd.gov/rules-and-compliance/current-rules). The Air District also uses its authority under the Health and Safety Code to provide grants and other incentives to encourage voluntary steps to reduce emissions, as well as providing leadership and advocacy to help encourage sound air quality policy choices throughout all sectors of the Bay Area's economy.

The New Source Review ("NSR") program is an important aspect of this planning approach to attain and maintain the applicable air quality standards. NSR addresses the potential for increases from new and modified sources to hinder the District's efforts to reduce emissions from existing sources as outlined in its clean air plans. As required under the federal and California Clean Air Acts, the NSR program controls emissions growth from new and modified sources so that it does not stand in the way of attaining and maintaining the applicable air quality standards.

The U.S. EPA has also adopted complementary standards called NSPS that apply to new and modified sources in a number of source categories. These NSPS are set forth in 40 C.F.R. Part 60. To date, the U.S. EPA has adopted nearly 100 different NSPS.

With respect to mobile sources, California imposes stringent motor vehicle emissions standards and fuel standards to address criteria pollutant emissions of concern. The Metropolitan Transportation Commission also implements measures designed to reduce emissions from the Bay Area's transportation infrastructure.

### **Toxic Air Contaminants**

Toxic air contaminants emitted from stationary-source facilities are regulated using a two-fold approach, which (i) requires sources to limit their TAC emissions using pollution control equipment or other technological approaches, and (ii) requires a health risk assessment for nearby sensitive receptors to ensure that the TACs that are emitted do not create unacceptable health risks for nearby sensitive receptors.

With respect to regulations on TAC emissions, the U.S. EPA has promulgated a suite of NESHAPs for various different source categories. These standards require sources of hazardous air pollutants located at major facilities to meet emissions limitations reflecting the maximum degree of emission reduction that the U.S. EPA has determined is achievable for their particular source category, taking into account cost, health and environmental impacts, and energy requirements. These standards are also known as Maximum Achievable Control Technology standards, or "MACT" standards. A full listing of the U.S. EPA's NESHAPs can be found at [www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-9](http://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-9). Similarly, CARB has adopted a series of emissions standards called Airborne Toxic Control Measures

(ATCMs) that limit TAC emissions. A full listing of CARB's ATCMs can be found at [www.arb.ca.gov/toxics/atcm/atcm.htm](http://www.arb.ca.gov/toxics/atcm/atcm.htm). The Air District has also adopted additional standards of its own for certain TACs, which are set forth in Air District Regulation 11.

With respect to preventing unacceptable health risks for nearby sensitive receptors, these concerns are addressed primarily through California's Air Toxics "Hot Spots" Act, in Health and Safety Code section 39660 *et seq.* (also referred to as "AB 2588"). The Air Toxics "Hot Spots" Act requires stationary-source facilities to periodically inventory all of their TAC emissions and conduct a Health Risk Assessment to evaluate the health risks to neighboring sensitive receptors as a result of those emissions. Facilities are required to notify the public if the Health Risk Assessment shows any significant adverse health impacts, and they must also prepare and implement risk reduction plans in an effort to reduce risks from their TAC emissions to less-than-significant levels. The Air District implements the Air Toxics Hot Spots Act within the Bay Area as part of the District's Air Toxics Control Program. The Air District also has a stringent New Source Review program for toxics, in District Regulation 2, Rule 5, which requires facilities to demonstrate that any new or modified TAC sources will not create unacceptable health risks in order to obtain a permit.

Finally, in addition to these regulatory programs, the Air District also implements an important program called the Community Air Risk Evaluation (CARE) program to help identify and address areas within the region that have the greatest localized air pollution concerns along with populations that are the most vulnerable to air pollution's impacts. The CARE program has brought together government, communities and businesses in an effort to understand and address localized areas of elevated air pollution and its adverse health impacts on communities. The Air District uses information from the CARE program to develop and implement targeted risk reduction programs, including grant and incentive programs, community outreach efforts, collaboration with other governmental agencies, model ordinances, new regulations for stationary sources and indirect sources, and advocacy for additional legislation.

## Significance Criteria

### Construction Emissions

The Air District's 1999 Thresholds of Significance did not identify specific significance thresholds for construction emissions. Rather the analysis required that certain control measures be implemented and, if implemented, the air pollutant impacts would be less than significant. The construction emissions identified in the 2010 CEQA Guidelines would be more conservative as they provide a specific threshold number above which impacts would be considered significant (see Table 3-5). Therefore, the 2010 CEQA Guidelines will be used in the current air quality analysis for construction emissions.

**TABLE 3-5**

**Thresholds of Significance for Construction-Related  
Criteria Air Pollutants and Precursors**

<b>Pollutant/Precursor</b>	<b>Daily Average Emissions (lbs/day)</b>
ROG	54
NOx	54
PM10	82*
PM2.5	54*
PM10/ PM2.5 Fugitive Dust	Best Management Practices

\*Applies to construction exhaust emissions only.

Source: BAAQMD, 2010

**Operational Emissions**

The Air District’s CEQA Guidelines have been developed to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality. The Air District first developed CEQA guidelines, which included significance thresholds for use by lead agencies, in 1999 (BAAQMD, 1999). On June 2, 2010, the Bay Area Air Quality Management District’s Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act. These thresholds are designed to establish the level at which the District believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on the Air District’s website and included in the Air District’s updated CEQA Guidelines (BAAQMD, 2010).

The Air District’s 2010 CEQA Thresholds have been the subject of legal challenges which are still on-going. In light of the legal challenges, the significance thresholds for the current EIR could be the significance thresholds developed in 1999. These “original” significance thresholds limited emissions for project operations to 15 tons per year or 80 pounds per day of ROG, NOx and PM10.

Alternatively, the revised 2010 CEQA Guidelines could also be used. The revised CEQA Guidelines (BAAQMD, 2010) established thresholds for regional plans as well as project-specific thresholds on both an annual basis and a daily basis. The most recently available BAAQMD draft CEQA guidelines established emission thresholds for specific projects, general plans, and regional plans. An air quality rule does not fall neatly into any of these categories. Air quality rules are typically regional in nature, as opposed to general plans, community plans and regional plans. In addition, air quality rules are usually specific to particular source types and particular pollutants. The Air Quality Plan threshold of “no net increase in emissions” is appropriate for Air Quality Plans because they include a mix of several control measures with individual trade-offs. For example, one control measure may result in combustion of methane to reduce greenhouse gas emissions, while increasing criteria pollutant emissions by a small amount. Those increases from the methane measure would be offset by decreases from other measures focused on reducing criteria pollutants. In a particular rule development effort, there may not be opportunities to make these trade-offs.

The 2010 project level stationary source thresholds are identified in Table 3-6. These thresholds are based on significant impact levels developed by the U.S. EPA as providing a significant contribution to regional non-attainment areas under the CAA. The Air District is planning to develop significance thresholds specifically for rules. Until that effort is complete and in order to provide a conservative air quality analysis, the thresholds recommended in the revised 2010 CEQA Guidelines (BAAQMD, 2010) will be used in the current air quality impacts analysis as they provide a more conservative analysis (lower thresholds) than the 1999 CEQA Guidelines.

**TABLE 3-6**

**Thresholds of Significance for Operation-Related  
Criteria Air Pollutants and Precursors**

<b>Pollutant/Precursor</b>	<b>Daily Average Emissions (lbs/day)</b>	<b>Maximum Annual Emissions (tons/year)</b>
ROG	54	10
NOx	54	10
PM10	82	15
PM2.5	54	10

\*Source: BAAQMD, 2010

For air toxics concerns, the threshold for a significant air quality impact is a lifetime cancer risk of 10 additional cancers per million people exposed or a non-cancer (i.e., chronic or acute) risk greater than 1.0 hazard index (BAAQMD, 2010).

**Discussion of Impacts**

**III a.** The proposed new rules and rule amendments are not expected to conflict with or obstruct implementation of the applicable air quality plan. The applicable air quality plan is the Air District’s recently-adopted 2017 Clean Air Plan, *Spare the Air, Cool the Climate* (“Plan”). The Plan outlines a strategy for achieving the Bay Area’s clean air goals by reducing emissions of ozone precursors, particulate matter, TACs and other pollutants in the region. The proposed new rules and rule amendments will not conflict with or obstruct implementation of the 2017 Clean Air Plan, rather they will help achieve the Plan’s goals by helping to reduce PM emissions. Amendments to Rule 6-1 would implement Control Measure SS31 in the 2017 Clean Air Plan. New Regulation 6 establishes common definitions and test methods for all Regulation 6 rules. New Rule 6-6 would help reduce emissions of PM by reducing emissions from trackout, thus improving public health and air quality in the region. The amendments to Rule 6-1, new Regulation 6 and new Rule 6-6 would help achieve the goals in the 2017 Clean Air Plan of reducing PM emissions.

**III b and c.** The proposed amendments and new rules may result in the installation of new equipment at facilities that need to comply with the new requirements.

### Construction Air Quality Impacts

Minor construction activities are expected to include upgrades to existing water spray/fog systems, installation of shroud, and operational improvements. Construction emissions associated with installing these types of equipment would be minor and would involve the transport of the new equipment which is expected to require one to two truck trips. Installation of the equipment would be expected to be limited to one to two workers and would not require any major construction equipment and no site preparation activities are expected to be required. Therefore, upgrades to water spray/fog systems and shrouds would result in minor construction emissions.

Construction activities would also be required for the construction of windscreens. Some minor construction equipment will be necessary to install windscreens. Construction emissions are summarized in Table 3-7 and detailed emission calculations are provided in Appendix A.

Construction would likely require a couple of medium-duty truck trips to deliver equipment, a construction crew of three to ten workers, and a few pieces of construction equipment (e.g., forklift, backhoe, loader, cement trucks, and hand tools). The construction of wind screens is expected to take approximately three weeks split between digging footings for the screens and constructing the screens on site. Peak emissions are expected to occur during the first phase of construction. In order to conservatively estimate peak day emissions, it is estimated that five windscreens would be installed concurrently, as shown in Table 3-7. See Appendix A for detailed emissions calculations. As shown in Table 3-7, construction emissions are expected to be less than the CEQA significance thresholds and would not be expected to result in a significant air quality impact.

**TABLE 3-7**

**Estimated Construction Emissions Impacts  
(lb/day)**

<b>Control Measure</b>	<b>VOC</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Windscreen Construction Peak Day Emissions	0.64	7.89	9.59	0.03	1.47	0.65
Peak Day Emissions for 5-10 Windscreens	3.2	39.5	47.9	0.2	7.3	3.2
<b>Total<sup>(1)</sup></b>	3.2	39.5	47.9	0.2	7.3	3.2
<b>BAAQMD CEQA Thresholds</b>	<b>54</b>	<b>NE<sup>(2)</sup></b>	<b>54</b>	<b>NE<sup>(2)</sup></b>	<b>82</b>	<b>54</b>
<b>Significant?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

1. Off-Road 2011. CO emissions from SCAQMD, 2006:  
[http://www.aqmd.gov/ceqa/handbook/offroad/offroadEF07\\_25.xls](http://www.aqmd.gov/ceqa/handbook/offroad/offroadEF07_25.xls)
2. NE - Thresholds are not established

### Operational Air Quality Impacts

The overall objective of the proposed new rules and rule amendments is to reduce TSP, PM<sub>10</sub> and PM<sub>2.5</sub> emissions from industrial sources, bulk material storage and handling facilities, disturbed sites and large construction sites. The proposed new rules and rule amendments will reduce emissions by reducing trackout at bulk storage facilities, large construction sites, and sites with

large disturbed surfaces and by requiring wind screens, enclosures, shrouds and water mist/fog systems at bulk material storage and handling facilities.

**Implementation of New Regulation 6:** Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

**Implementation of Amendments to Rule 6-1:** Current PM emissions estimates from the 2011 Emission Inventory total 174.20 tons per day (tpd) of TSP, 105.63 tpd PM<sub>10</sub>, and 46.31 tpd PM<sub>2.5</sub>. The more stringent TSP limits under Rule 6-1 will impact only one moderate source of PM emissions. Most Bay Area source's PM limits have been established through permit conditions when the source was installed or modified. The general nature of the TSP limits in Rule 6-1 require that they apply to all PM sources, so they are less restrictive than the permit conditions that may be applied to any specific source. As a result, no emission reductions are expected from the proposed more stringent TSP limits.

Bulk Material Sources with more than 6 lbs. per day TSP emissions: There are 72 facilities with 134 sources of more than six lbs per day of TSP emissions. Forty-four of these sources are already equipped with water spray systems, and the other 90 of these sources do not currently appear to have any dust controls. The Air District estimates that 44 sources may elect to upgrade their existing water sprays to water fog or water mist systems in order to reduce water use, but this will not significantly reduce emissions. It is estimated that the remaining 90 sources will be controlled with wind screens, transfer point shrouds, and loading/unloading chutes. Some judicious use of water fog and water mist systems may be necessary in locations where it is difficult to fit wind screens or shrouds. The Air District expects that less than half of the 90 sources will require supplemental water fog or sprays along with wind screens. In addition, only approximately half of these sources will actually install controls, because the facilities will be able to improve their operations to meet the ten percent opacity requirements. Emissions reductions are estimated based on only 45 of the sources being fitted with emissions control. It is assumed that screens/shrouds and loading chutes are 70 percent effective, resulting in emission reductions of 0.45 tons per day of TSP, 0.37 tons per day of PM<sub>10</sub>, and 0.03 tons per day of PM<sub>2.5</sub> (see Table 3-8).

Bulk Material Sources with 2 – 6 lbs. per day TSP emissions: There are 72 facilities with 123 sources of TSP emissions ranging from two to six lbs per day (some of these facilities also have sources with greater than six lbs. per day of TSP emissions). Forty of these sources are already equipped with water spray systems, and the other 83 of these sources do not currently appear to have any dust controls. The Air District estimates that some of the 40 sources with water sprays may be upgraded to water fog or water mist systems to reduce water use, but will not significantly reduce emissions. It is estimated that the remaining sources will likely not be controlled with wind screens, transfer point shrouds, and loading/unloading chutes. Current emissions of two to six lbs. per day may be small enough to meet the visible emissions performance objective of ten percent opacity without installing additional controls. No additional emissions reductions from these sources are expected. Table 3-8 summarizes the expected emissions reductions from the amendments to Rule 6-1

TABLE 3-8

## Expected Emissions Reductions from the Proposed Project

Source Categories	TSP (tpd)	PM <sub>10</sub> (tpd)	PM <sub>2.5</sub> (tpd)
2011 Emission Inventory Totals	174.20	105.63	46.31
Amendments to Rule 6-1 Estimated Emission Reductions	0.45	0.37	0.03
Amendments to Rule 6-1 Reductions from Total PM Emissions	0.26%	0.35%	0.06%
Rule 6-6 Estimated Emission Reductions	2.69	1.23	0.18
Rule 6-6 Reductions from Total PM Emissions	1.54%	1.16%	0.39%
<b>Total Project Emissions Reductions</b>	<b>3.14</b>	<b>1.60</b>	<b>0.21</b>
<b>Total Project Emissions Reductions from Total PM Emissions</b>	<b>1.80%</b>	<b>1.51%</b>	<b>0.45%</b>

**Implementation of Rule 6-6**

The Air District estimates that approximately 50 percent of current local road dust comes from trackout, with the remainder from spills, erosion, and degradation of the roads themselves. Proposed new Rule 6-6 requires large bulk material sites, large construction sites, and large disturbed surface sites to take steps to monitor and prevent trackout onto paved roadways. The Air District estimates that very little trackout occurs from small bulk material sites, small construction sites, and small disturbed surface sites simply because they are small with very little vehicle traffic in and out. Thus, emission reductions are based on large sites, with area greater than one acre.

Trackout prevention is currently required as part of a large facility or large construction site's SWPPP. The Air District estimates approximately one-third of sites are currently marginal or inadequate in their compliance with trackout requirements. The Air District estimates that specific limits on visible roadway material, monitoring and cleanup requirements will reduce PM emissions from the existing one-third marginal performers by approximately 25 percent. Twenty-five percent reductions in emissions from 50 percent of the road dust from local roads will result in emission reductions of 12.5 percent. Thus, it is estimated that the adoption of Rule 6-6 will have a total reduction of 2.69 tpd of TSP, 1.23 tpd PM<sub>10</sub>, and 0.18 tpd PM<sub>2.5</sub>. Overall emissions reductions as a result of the proposed project are summarized in Table 3-8.

Based on the above, the proposed project is expected to result in a minor increase in temporary construction emissions and a reduction in operational emissions of TSP, PM<sub>10</sub> and PM<sub>2.5</sub>, providing a beneficial impact to air quality.

CEQA Guidelines indicate that cumulative impacts of a project shall be discussed when the project's incremental effect is cumulatively considerable, as defined in CEQA Guidelines §15065(c). While the proposed project may initially create an increase in emissions for the construction or installation of control equipment, the project as a whole will result in reduced

emissions of PM. In addition, the proposed rule and rule amendments would implement Control Measure SS31 in the 2017 Clean Air Plan and help achieve the Plan's goals of reducing PM emissions to comply with ambient air quality requirements. Therefore, the cumulative air quality impacts of the proposed project are expected to be beneficial and not adversely significant.

**III d.** The proposed amendments to Rule 6-1, new Regulation 6 and new Rule 6-6 are not expected to result in any increases in emissions of any TACs. The rules are expected to result in emission decreases associated with control of PM emissions using new water/fog spray systems, modifications to existing water spray systems, and through the use of wind screens or shrouds. These control measures would not result in an increase in the use of hazardous materials or result in the generation of TAC emissions. The proposed new rules and rule amendments are, therefore, not expected to cause any sensitive receptors to be exposed to non-carcinogenic health risks with an acute or chronic Hazard Index exceeding 1. To the extent that any regulated facilities may be located in an area where the existing acute or chronic Hazard Index exceeds 1 (or is projected to exceed 1 based on other current or future projects), the proposed new rules and rule amendments will not result in any increased TAC emissions that would increase this risk, so the proposed new rules and rule amendments would not be making a cumulatively considerable contribution to that significant health risk.

With respect to carcinogenic risk, although nearly all developed areas in the Bay Area where regulated facilities are located are impacted by a significant carcinogenic health risk based on emissions from existing sources, the proposed new rules and rule amendments will not make a cumulatively considerable contribution to that existing significant impact. The proposed new rules and rule amendments are not expected to result in an increase in TAC emissions, and so they are not expected to cause an increase in the cancer risk that any sensitive receptor is exposed to by more than 10 in one million, which is the level at which the Air District considers the contribution to be cumulatively considerable.

**III e.** The proposed amendments to Rule 6-1, new Regulation 6 and new Rule 6-6 are expected to result in emission decreases associated with control of PM emissions using new water/fog spray systems, modifications to existing water spray systems, and through the use of wind screens or shrouds. These control measures would not result in an increase in the use of substances that generate odors. Therefore, proposed amendments to Rule 6-1, new Regulation 6 and Rule 6-6 are not expected to result in any increase in odorous emissions from any facilities.

## Conclusion

Based upon these considerations, no significant adverse impacts to air quality are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES. Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. A wide variety of biological resources are located within the Bay Area.

A complex interaction of soils, topography, and climate in the Bay Area supports numerous natural communities comprised of a diversity of vegetative types that provide habitat for a diverse number of plant and wildlife species. Broad habitat categories in the region include grasslands, coastal scrubs and chaparral, woodlands and forests, riparian systems and freshwater aquatic habitat, and wetlands. Extensive aquatic resources are provided by the San Francisco Bay Delta estuary, as well as numerous other rivers and streams. Urban and otherwise highly disturbed habitats, such as agricultural fields, also provide natural functions and values as wildlife habitat (ABAG, 2013).

The proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 will affect stationary sources with fugitive PM emissions in the Bay Area. Some of these sources are located in industrial areas. Large disturbed surface sites (e.g., landfills) would also tend to be located within industrial areas. Large construction sites that would be affected by Rule 6-6 and required to prevent trackout onto paved roadways could be located in various land uses throughout the Bay Area. Biological resources are not usually located in industrial areas.

## Regulatory Background

Biological resources are generally protected by the City and/or County General Plans through land use and zoning requirements which minimize or prohibit development in biologically sensitive areas. Biological resources are also protected by the California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service and National Marine Fisheries Service oversee the federal Endangered Species Act. Development permits may be required from one or both of these agencies if development would impact rare or endangered species. The California Department of Fish and Wildlife administers the California Endangered Species Act, which prohibits impacting endangered and threatened species. The U.S. Army Corps of Engineers and the U.S. EPA regulate the discharge of dredge or fill material into waters of the United States, including wetlands.

## Significance Criteria

The proposed project impacts on biological resources will be considered significant if:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

## Discussion of Impacts

**IV a, b, c and d).** The proposed new rules and rule amendments to Rule 6-1 are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required at bulk handling facilities to install windscreens, enclosures, shrouds, and water mist/fog spray systems, which are located within industrial areas. Construction activities associated with the proposed project are expected to occur in industrial areas, e.g., landfills and bulk loading facilities, where native biological resources have been removed or are non-existent. Thus, the proposed project is not expected to result in any impacts to biological resources.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have biological resource impacts, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no biological resource impacts.

Construction activities in areas that may potentially affect biological resources will occur with or without the proposed new rules and rule amendments. Thus, proposed regulatory project is not expected to affect sensitive biological resources directly or indirectly, impact riparian habitats, protected wetlands, marshes, or vernal pools, coastal wetlands and would not conflict with local policies or ordinances protecting biological resources or an adopted habitat conservation plan.

**IV e and f).** The proposed project is not expected to affect land use plans, local policies or ordinances, or regulations protecting biological resources such as a tree preservation policy or ordinances for the reasons already given. Land use and other planning considerations are determined by local governments and land use or planning requirements are not expected to be altered by the proposed project. Similarly, the proposed new rules and rule amendments are not expected to affect any habitat conservation or natural community conservation plans, biological resources or operations, and would not create divisions in any existing communities, as construction activities would be limited to existing facilities in industrial areas that have already been developed and graded.

## Conclusion

Based upon these considerations, no significant adverse impacts to biological resources are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES.</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. Cultural resources are defined as buildings, sites, structures, or objects which might have historical architectural, archaeological, cultural, or scientific importance.

The Carquinez Strait represents the entry point for the Sacramento and San Joaquin Rivers into the San Francisco Bay. This locality lies within the San Francisco Bay and the west end of the Central Valley archaeological regions, both of which contain a rich array of prehistoric and historical cultural resources. The areas surrounding the Carquinez Strait and Suisun Bay have been occupied for millennia given their abundant combination of littoral and oak woodland resources.

The proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 will affect stationary sources with fugitive PM emissions in the Bay Area. Some of these sources are located in industrial areas (e.g., bulk material storage and handling facilities). Large disturbed surface sites (e.g., landfills) would also tend to be located within industrial areas. Large construction sites that would be affected by Rule 6-6 and required to prevent trackout onto paved roadways could be located in various land uses throughout the Bay Area.

## Regulatory Background

The State CEQA Guidelines define a significant cultural resource as a “resource listed or eligible for listing on the California Register of Historical Resources” (Public Resources Code Section 5024.1). A project would have a significant impact if it would cause a substantial adverse change in the significance of a historical resource (State CEQA Guidelines Section 15064.5(b)). A substantial adverse change in the significance of a historical resource would result from an action that would demolish or adversely alter the physical characteristics of the historical resource that convey its historical significance and that qualify the resource for inclusion in the California Register of Historical Resources or a local register or survey that meets the requirements of Public Resources Code §§50020.1(k) and 5024.1(g).

## Significance Criteria

The proposed project impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

## Discussion of Impacts

**V a, b, c and d).** CEQA Guidelines state that generally, a resource shall be considered “historically significant” if the resource meets the criteria for listing in the California Register of Historical Resources including the following:

- A. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- B. Is associated with the lives of persons important in our past;
- C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
- D. Has yielded or may be likely to yield information important in prehistory or history (CEQA Guidelines §15064.5).

Generally, resources (buildings, structures, equipment) that are less than 50 years old are excluded from listing in the National Register of Historic Places unless they can be shown to be exceptionally important. The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites.

Windscreens, enclosures, shrouds, and water mist systems may be constructed at bulk material storage and handling facilities (e.g., petroleum coke and coal facilities) which are located within industrial areas. Some affected stationary source facilities may have equipment or structures older than 50 years and may modify existing water/fog systems, however, this type of equipment does not meet the criteria identified in CEQA Guidelines §15064.5(a)(3).

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPPs. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have cultural resource impacts, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no cultural resource impact.

Construction activities in areas that may potentially affect cultural resources are not expected to be a result of the proposed project and could occur with or without the proposed new rules and rule amendments. Further construction activities associated with the proposed project are expected to be limited to commercial or industrial areas that have already been developed. Thus, the proposed new rules and rule amendments would not adversely affect historical or archaeological resources as defined in CEQA Guidelines §15064.5, destroy unique paleontological resources or unique geologic features, or disturb human remains interred outside formal cemeteries. Therefore, no impacts to cultural resources are anticipated to occur as a result of the proposed project as no major construction activities are required.

## Conclusion

Based upon these considerations, no significant adverse impacts to cultural resources are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS. Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (1994) (formerly referred to as the Uniform Building Code), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The Bay Area is located in the natural region of California known as the Coast Ranges geomorphic province. The province is characterized by a series of northwest trending ridges and valleys controlled by tectonic folding and faulting, examples of which include the Suisun Bay, East Bay Hills, Briones Hills, Vaca Mountains, Napa Valley, and Diablo Ranges.

Regional basement rocks consist of the highly deformed Great Valley Sequence, which include massive beds of sandstone inter-fingered with siltstone and shale. Unconsolidated alluvial deposits, artificial fill, and estuarine deposits, (including Bay Mud) underlie the low-lying region along the margins of the Carquinez Strait and Suisun Bay. The estuarine sediments found along the shorelines of Solano County are soft, water-saturated mud, peat and loose sands. The organic, soft, clay-rich sediments along the San Francisco and San Pablo Bays are referred to locally as Bay Mud and can present a variety of engineering challenges due to inherent low strength, compressibility and saturated conditions. Landslides in the region occur in weak, easily weathered bedrock on relatively steep slopes.

The San Francisco Bay Area is a seismically active region, which is situated on a plate boundary marked by the San Andreas Fault System. Several northwest trending active and potentially active faults are included with this fault system. Under the Alquist-Priolo Earthquake Fault Zoning Act, Earthquake Fault Zones were established by the California Division of Mines and Geology along “active” faults, or faults along which surface rupture occurred in Holocene time (the last 11,000 years). In the Bay area, these faults include the San Andreas, Hayward, Rodgers Creek-Healdsburg, Concord-Green Valley, Greenville-Marsh Creek, Seal Cove/San Gregorio and West Napa faults. Other smaller faults in the region classified as potentially active include the Southampton and Franklin faults.

Ground movement intensity during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geological material. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill. Earthquake ground shaking may have secondary effects on certain foundation materials, including liquefaction, seismically induced settlement, and lateral spreading.

## Regulatory Background

Construction is regulated by the local City or County building codes that provide requirements for construction, grading, excavations, use of fill, and foundation work including type of materials, design, procedures, etc. which are intended to limit the probability of occurrence and the severity of consequences from geological hazards. Necessary permits, plan checks, and inspections are generally required.

The City or County General Plan includes the Seismic Safety Element. The Element serves primarily to identify seismic hazards and their location in order that they may be taken into account in the planning of future development. The California Building Code is the principle mechanism for protection against and relief from the danger of earthquakes and related events.

In addition, the Seismic Hazard Zone Mapping Act (Public Resources Code §§2690 – 2699.6) was passed by the California legislature in 1990 following the Loma Prieta earthquake. The Act required that the California Division of Mines and Geology (DMG) develop maps that identify the areas of the state that require site specific investigation for earthquake-triggered landslides and/or potential liquefaction prior to permitting most urban developments. The act directs cities, counties, and state agencies to use the maps in their land use planning and permitting processes.

Local governments are responsible for implementing the requirements of the Seismic Hazards Mapping Act. The maps and guidelines are tools for local governments to use in establishing their land use management policies and in developing ordinances and reviewing procedures that will reduce losses from ground failure during future earthquakes.

## Significance Criteria

The proposed project impacts on the geological environment will be considered significant if:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

## Discussion of Impacts

**VI a, c, and d).** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required. Windscreens, enclosures, shrouds, and water mist/fog systems may be constructed at bulk material storage and handling facilities (e.g., petroleum coke and coal facilities) which are located within industrial areas. Construction of equipment as a result of the proposed project is expected to occur in industrial areas.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the

use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have impacts on geology and soils, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no impacts on geology and soils.

New development potentially resulting in earthquake hazards is expected to be limited to wind screens and enclosures. New construction (including modifications to existing structures) requires compliance with the California Building Code. The California Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage. The California Building Code basis seismic design on minimum lateral seismic forces (“ground shaking”). The California Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the California Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site. Compliance with the California Building Code would minimize the impacts associated with existing geological hazards.

**VI b).** Construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds and mist/fog systems at bulk material storage and handling facilities. All construction would take place at already existing facilities that have been previously graded. Thus, the proposed project is not expected to result in substantial soil erosion or the loss of topsoil as construction activities are expected to be limited to existing industrial facilities.

**VI e).** Septic tanks or other similar alternative wastewater disposal systems are typically associated with small residential projects in remote areas. The proposed amendments to Rule 6-1 would affect stationary sources that have existing wastewater treatment systems or which are connected to appropriate wastewater facilities. Rule 6-6 affects large construction sites and bulk storage facilities and any impacts associated with septic tanks or other alternative disposal systems would occur with or without the proposed project. Further, no increase in water use or wastewater generation is expected. Additionally, facilities affected by the amendments to Regulation 6-1 are industrial or commercial facilities that are connected or would be required to be connected to appropriate wastewater treatment facilities and are not expected to rely on septic tanks or similar alternative wastewater disposal systems. Based on these considerations, septic tanks or other alternative wastewater disposal systems are not expected to be impacted by the proposed project.

## Conclusion

Based upon these considerations, no significant adverse impacts to geology and soils are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VII. GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE.</b> Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

Global climate change refers to changes in average climatic conditions on the earth as a whole, including temperature, wind patterns, precipitation and storms. Global climate change is caused primarily by an increase in levels of greenhouse gases (GHGs) in the atmosphere. The major greenhouse gases are the so-called “Kyoto Six” gases – carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs) – as well as black carbon.<sup>2</sup> These greenhouse gases absorb longwave radiant energy (heat) reflected by the earth, which warms the atmosphere in a phenomenon known as the “greenhouse effect.” The potential effects of global climate change include rising surface temperatures, loss in snow pack, sea level rise, ocean acidification, more extreme heat days per year, and more drought years.

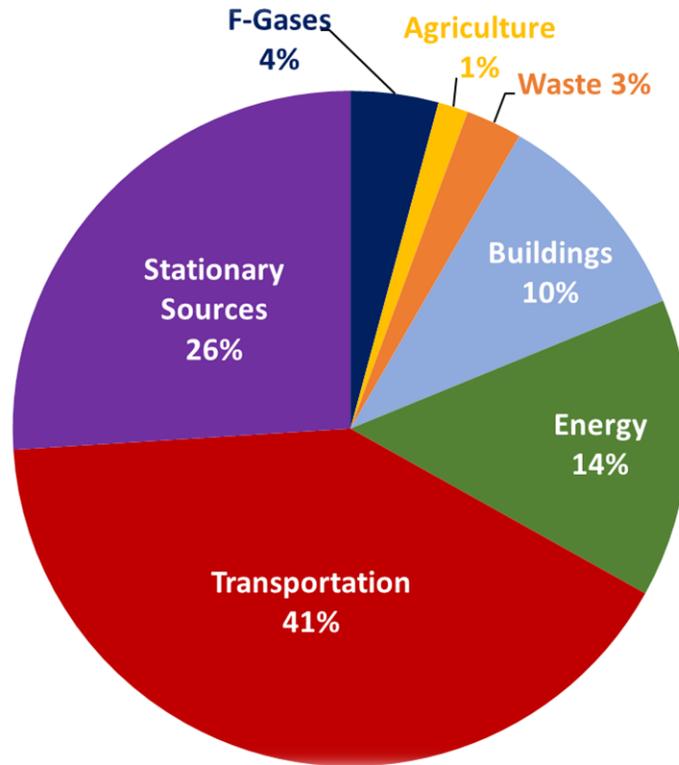
Increases in the combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.) since the beginning of the industrial revolution have resulted in a significant increase in atmospheric levels of greenhouse gases. CO<sub>2</sub> levels have increased from long-term historical levels of around 280 ppm before the mid-18<sup>th</sup> century to over 400 ppm today. This increase in greenhouse gases has already caused noticeable changes in the climate. The average global temperature has risen by approximately 1.4°F (0.8°C) over the past one hundred years, and 16 of the 17 hottest years in recorded history have occurred since 2001, according to the National Oceanic and Atmospheric Administration.

Total global greenhouse gas emissions contributing to climate change are in the tens of billions of metric tons of CO<sub>2</sub>e per year. The Bay Area’s contribution to the global total is approximately 85 million tons per year. Figure 3-5 presents a breakdown of the region’s greenhouse gas emissions

<sup>2</sup> Technically, black carbon is not a gas but is made up of solid particulates or aerosols. It is included in the discussion of greenhouse gas emissions because, like true greenhouse gases, it is an important contributor to global climate change.

by major source categories. Transportation sources generate approximately 40 percent of the total, with the remaining 60 percent coming from stationary and area sources (see Figure 3-5).

**FIGURE 3-5**  
**2015 Bay Area Greenhouse Gas Emissions by Source Category (Total = 85 MMT CO<sub>2</sub>e)**

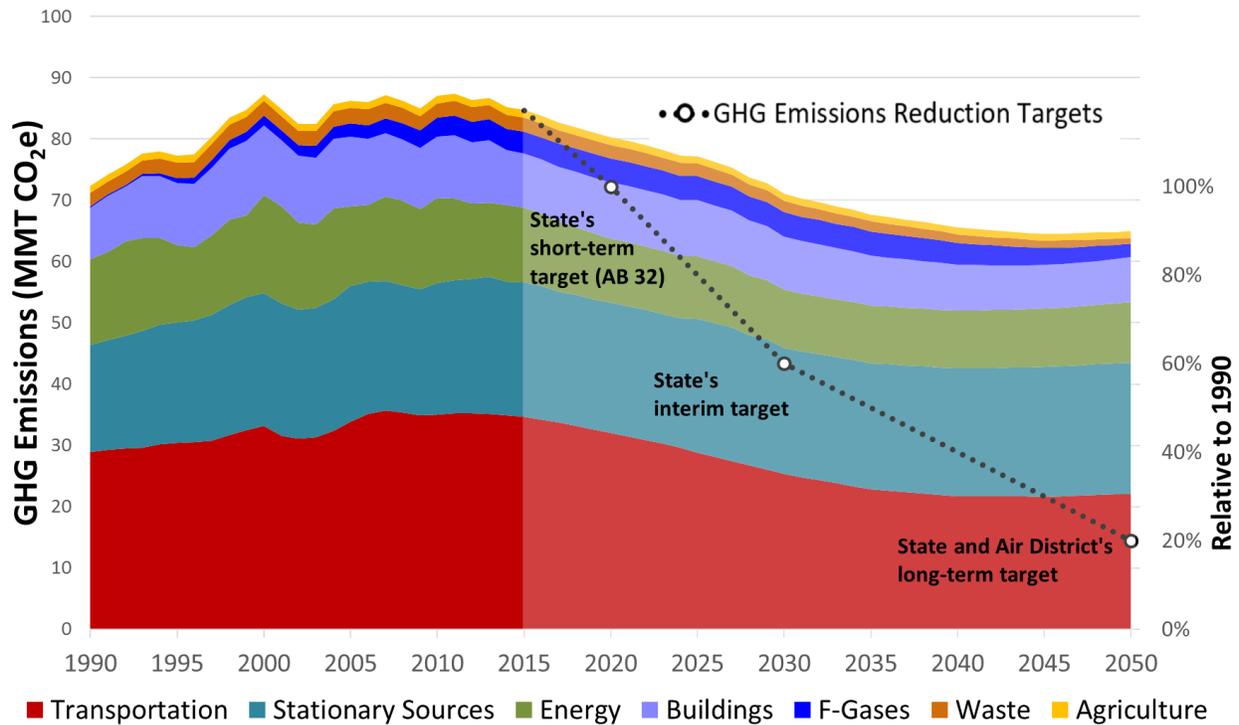


Source: BAAQMD, 2017

Historically, regional greenhouse gas emissions rose substantially as the Bay Area industrialized. But emissions have peaked recently, and they are expected to decline in the coming years. Figure 3-6 shows the Bay Area’s total greenhouse gas emissions since 1990, with projections for future emissions through 2050. As the figure shows, emissions are expected to decline in the future as the region continues to shift away from burning fossil fuels and towards renewable energy resources such as wind and solar power. Emissions will need to decline even more than currently projected, however, in order to reach the aggressive targets adopted by California and by the Air District. These greenhouse gas reduction goals are represented by the dashed line on the graph in Figure 3-6.

**FIGURE 3-6**

**Projected Bay Area Greenhouse Gas Emissions by Sector Based on State Policies**



Source: BAAQMD, 2017

### Regulatory Background

There is a general consensus that global temperature increases must be limited to well under 2°C in order to reduce the risks and impacts of climate change to an acceptable level. This consensus is embodied most notably in the Paris Climate Agreement, in which virtually every nation around the world committed to achieving this global goal. Limiting global climate change to no more than this amount drives greenhouse gas regulation at every level.

For purposes of the Bay Area, the most important regulatory actions on climate change have been undertaken by the State of California. To fulfill its share of the burden of keeping climate change within acceptable limits, California has committed to reducing its greenhouse gas emissions to 1990 levels by 2020, to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. This commitment is enshrined in AB 32, the Global Warming Solutions Act of 2006, which adopted the 2020 target; in 2016’s SB 32 (Pavley), which adopted the 2030 target; and in Executive Order S-3-05, which adopted the 2050 target. The Air District has adopted the same 80 percent reduction target for 2050 for the Bay Area’s greenhouse gas emissions, in Board of Directors Resolution 2013-11.

To achieve these emission reduction goals, the California legislature has directed the California Air Resources Board (CARB) to develop a Scoping Plan setting forth regulatory measures that CARB will implement, along with other measures, to reduce the state's greenhouse gas emissions. One of the principal regulatory measures is CARB's Cap and Trade program, which requires industrial greenhouse gas sources to obtain "allowances" equal to their greenhouse gas emissions. The amount of available allowances is subject to a "cap" on total emissions statewide, which CARB will reduce each year. Regulated facilities will either have to reduce their emissions or purchase allowances on the open market, which will give them a financial incentive to reduce emissions and will ensure that total annual emissions from the industrial sector will not exceed the declining statewide cap.

California has also adopted the so-called "Renewable Portfolio Standard" for electric power generation, which requires that at least 33 percent of the state's electric power must come from renewable sources by 2020, and at least 50 percent must come from renewables by 2030. To complement these efforts on electricity generation, the state has also committed to increasing the energy efficiency of existing buildings by 50 percent by 2050 in order to reduce energy demand.

California has also adopted regulatory measures aimed at reducing greenhouse gas emissions from mobile sources. These measures include the so-called "Pavley" standards for motor vehicle emissions and the state's Low Carbon Fuel Standard, which set limits on the carbon intensity of transportation fuels. California has also adopted SB 375, the Sustainable Communities and Climate Protection Act of 2008, which requires regional transportation and land use planning agencies to develop coordinated plans, called "Sustainable Communities Strategies," to reduce greenhouse gas emissions from the transportation sector by promoting denser development and alternatives to driving. The current Sustainable Communities Strategy for the Bay Area is *Plan Bay Area 2040*, was adopted by the Metropolitan Transportation Commission and the Association of Bay Area Governments in July of 2017.

The Air District supports these statewide goals through action at the regional level. The Air District has committed to reducing the Bay Area's regional greenhouse gas emissions to 80 percent below 1990 levels by 2050, as noted above. The Air District has also committed to a broad suite of specific measures to address greenhouse gases in the 2017 Clean Air Plan, *Spare the Air, Cool the Climate*. That document lays out the Air District's vision for what the Bay Area may look like in a post-carbon year 2050 and describes policies and actions that the region needs to take in the near-to mid-term to achieve these goals.

At the federal level, the United States has joined the international community in signing on to the Paris Climate Agreement and its commitment to limit global temperature increases to well under 2°C. The United States has committed under the Paris Agreement to reducing its greenhouse gases by 26-28 percent by 2025. The U.S. EPA has adopted a number of regulatory measures to address greenhouse gas emissions in support of this goal, including emissions standards for cars and light duty trucks and the "Clean Power Plan" regulations setting caps on each state's emissions from the power generation sector. The U.S. EPA has also extended the federal New Source Review requirements to greenhouse gases, requiring that major stationary sources use the "Best Available Control Technology" to limit their greenhouse gas emissions. The current administration has signaled that it will back off on these initiatives, however. If that occurs, it will place even more

emphasis on California, and on regions like the Bay Area, to take the lead in addressing climate change.

## Significance Criteria

The most recently available BAAQMD draft CEQA guidelines established GHG thresholds for specific projects, general plans, and regional plans. An air quality rule does not fall neatly into any of these categories. Air quality rules are typically regional in nature, as opposed to general plans, community plans and regional plans. In addition, air quality rules are usually specific to particular source types and particular pollutants.

The BAAQMD draft CEQA Guidelines (BAAQMD, 2010) established a GHG threshold for air quality plans of “no net increase in emissions,” which is appropriate for air quality plans because they include a mix of control measures with individual trade-offs. For example, one control measure may result in combustion of methane to reduce greenhouse gas emissions, while increasing criteria pollutant emissions by a small amount. Those increases from the methane measure would be offset by decreases from other measures focused on reducing criteria pollutants. In a particular rule development effort, there may not be opportunities to make these trade-offs.

The project level GHG threshold for stationary source projects is 10,000 metric tons of carbon dioxide equivalent (CO<sub>2</sub>eq) emissions under the BAAQMD draft CEQA Guidelines. This threshold is expected to capture approximately 95 percent of all GHG emissions from new permit applications from stationary sources within the jurisdiction of the Air District. The threshold level was calculated as an average of the combined CO<sub>2</sub> emissions from all stationary source permit applications submitted to the Air District during the three-year analysis period (BAAQMD, 2010). The project-level GHG significance thresholds of 10,000 MT CO<sub>2</sub>eq will be used to evaluate the cumulative GHG impacts.

## Discussion of Impacts

**VII a.** Combustion of conventional hydrocarbon fuel results in the release of energy as bonds between carbon and hydrogen are broken and reformed with oxygen to create water vapor and carbon dioxide (CO<sub>2</sub>). CO<sub>2</sub> is not a pollutant that occurs in relatively low concentrations as a by-product of the combustion process; CO<sub>2</sub> is a necessary combustion product of any fuel containing carbon. Therefore, attempts to reduce emissions of greenhouse gases from combustion focus on increasing energy efficiency – consuming less fuel to provide the same useful energy output.

The analysis of greenhouse gas emissions is a different analysis than for criteria pollutants for the following reasons. For criteria pollutant, significance thresholds are based on daily emissions because attainment or non-attainment is typically based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects to human health, e.g., one-hour and eight-hour. Using the half-life of CO<sub>2</sub>, 100 years for example, the effects of greenhouse gases are longer-term, affecting the global climate over a relatively long timeframe. Greenhouse gases do not have human health effects like criteria pollutants. Rather, it is the increased accumulation of greenhouse gases in the atmosphere that may result in global climate change. Due to the complexity of conditions and interactions

affecting global climate change, it is not possible to predict the specific impact, if any, attributable to greenhouse gas emissions associated with a single project. Furthermore, the greenhouse gas emissions associated with the proposed rule would be small relative to total global or even state-wide greenhouse gas emissions. Thus, the significance of potential impacts from greenhouse gas emissions related to the proposed project has been analyzed for long-term operations on a cumulative basis, as discussed below.

The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Windscreens, enclosures, shrouds and mist/fog systems may be constructed at bulk material storage and handling facilities (e.g., petroleum coke and coal facilities) which are located within industrial areas.

Construction would likely require a couple of medium-duty truck trips to deliver equipment, a construction crew of three to ten workers, and a few pieces of construction equipment (e.g., forklift, backhoe, loader, cement trucks, and hand tools). The construction of wind screens is expected to take approximately three weeks split between digging footings for the screens and constructing the screens on site. The Air District estimates that up to 73 facilities could install wind screens as a result of the proposed project. Thus, it is conservatively assumed that all 73 facilities will install wind screens. The increase in greenhouse gas emissions associated with construction activities at bulk handling facilities are summarized in Table 3-9. Detailed emission calculations are provided in Appendix A.

**TABLE 3-9**  
**Greenhouse Gas Emissions Increases Associated with the**  
**Implementation of Rules 6-1 and 6-6**  
**(metric tons/yr)**

<b>Activity</b>	<b>CO<sub>2</sub>e</b>
Construction GHG Emissions (One Wind Screen)	11.98
Construction GHG Emissions (30 yr Amortized)	0.40
Emissions for 73 Wind Screens	29.20
<b>Total</b>	29.20
BAAQMD Significance Threshold	10,000
<b>Significant?</b>	<b>No</b>

The greenhouse gas emissions associated with the proposed rule and rule amendments are expected to be less than the greenhouse gas threshold and, therefore, less than significant. The proposed new rules and rule amendments are, therefore, not expected to make a cumulatively considerable contribution to the significant cumulative impact caused by greenhouse gas emissions. Thus, there will be no significant greenhouse gas impacts.

**VII b.** The proposed new rules and rule amendments will not conflict with any plans, policies, or regulations addressing climate change. As discussed above, applicable plans, policies and regulations are aimed at limiting global climate change to well under 2°C, and at reducing regional and state-wide emissions to 80 percent below 1990 levels by 2050 in order to achieve that goal.

The proposed new rules and rule amendments will not conflict with the Bay Area's progress towards achieving that emission reduction target. Further, the proposed project will not require affected facilities to make any substantial changes that would increase their greenhouse gas emissions, and they will not conflict with any regulatory efforts to achieve the state and regional greenhouse gas reduction goals under CARB's Scoping Plan, the District's 2017 Clean Air Plan, *Plan Bay Area 2040*, or any other local climate action plan.

## **Conclusion**

Based upon these considerations, no significant adverse greenhouse gas impacts are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

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	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VIII. HAZARDS AND HAZARDOUS MATERIALS.** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Significantly increased fire hazard in areas with flammable materials?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses.

Facilities and operations within the District handle and process substantial quantities of flammable materials and acutely toxic substances. Accidents involving these substances can result in worker or public exposure to fire, heat, blast from an explosion, or airborne exposure to hazardous substances.

Fires can expose the public or workers to heat. The heat decreases rapidly with distance from the flame and, therefore, poses a greater risk to workers at specific facilities where flammable materials and toxic substances are handled than to the public. Explosions can generate a shock wave, but the risks from explosion also decrease with distance. Airborne releases of hazardous materials may affect workers or the public, and the risks depend upon the location of the release, the hazards associated with the material, the winds at the time of the release, and the proximity of receptors.

For all facilities and operations handling flammable materials and toxic substances, risks to the public are reduced if there is a buffer zone between process or storage units and residences or if prevailing winds blow away from residences. Thus, the risks posed by operations at a given facility or operation are unique and determined by a variety of factors.

Hazards are related to the risks of fire, explosions, or releases of hazardous substances in the event of accident or upset conditions. Hazards are related to the production, use, storage, and transport of hazardous materials. Industrial production and processing facilities are potential sites for hazardous materials. Some facilities produce hazardous materials as their end product, while others use such materials as an input to their production processes. Examples of hazardous materials used by consumers include fuels, paints, paint thinner, nail polish, and solvents. Hazardous materials may be stored at facilities producing such materials and at facilities where hazardous materials are part of the production processes. Currently, hazardous materials are transported throughout the Bay Area in great quantities via all modes of transportation including rail, highway, water, air, and pipeline.

The potential hazards associated with handling such materials are a function of the materials being processed, processing systems, and procedures used to operate and maintain the facilities where they exist. The hazards that are likely to exist are identified by the physical and chemical properties of the materials being handled and their process conditions, including fires, vapor cloud explosions, thermal radiation, and explosion/overpressure.

## Regulatory Background

There are many federal and state rules and regulations that facilities handling hazardous materials must comply with which serve to minimize the potential impacts associated with hazards at these facilities.

Under the Occupational Safety and Health Administration (OSHA) regulations [29 Code of Federal Regulations (CFR) Part 1910], facilities which use, store, manufacture, handle, process, or move highly hazardous materials must prepare a fire prevention plan. In addition, 29 CFR Part 1910.119, Process Safety Management (PSM) of Highly Hazardous Chemicals, and Title 8 of the California Code of Regulations, General Industry Safety Order §5189, specify required prevention program elements to protect workers at facilities that handle toxic, flammable, reactive, or explosive materials.

Section 112 (r) of the Clean Air Act Amendments of 1990 [42 U.S.C. 7401 et. Seq.] and Article 2, Chapter 6.95 of the California Health and Safety Code require facilities that handle listed regulated substances to develop Risk Management Programs (RMPs) to prevent accidental releases of these substances, U.S. EPA regulations are set forth in 40 CFR Part 68. In California, the California Accidental Release Prevention (CalARP) Program regulation (CCR Title 19, Division 2, Chapter 4.5) was issued by the Governor's Office of Emergency Services (OES). RMPs are documents prepared by the owner or operator of a stationary source containing detailed information including: (1) regulated substances held onsite at the stationary source; (2) offsite consequences of an accidental release of a regulated substance; (3) the accident history at the stationary source; (4) the emergency response program for the stationary source; (5) coordination with local emergency responders; (6) hazard review or process hazard analysis; (7) operating procedures at the stationary source; (8) training of the stationary source's personnel; (9) maintenance and mechanical integrity of the stationary source's physical plant; and (10) incident investigation. California is proposing modifications to the CalARP Program along with the state's PSM program in response to an accident at the Chevron Richmond Refinery. The proposed regulations were released for public comment on July 15, 2016 and the public comment period closed on September 15, 2016. After the close of the comment period a modified version of the proposed regulations was released in February 2017 and the public comment period for comments on the modifications closed on March 30, 2017. The final document was then filed with the Secretary of State in July 2017 and has gone into effect as of October 1, 2017.

Affected facilities that store materials are required to have a Spill Prevention Control and Countermeasures (SPCC) Plan per the requirements of 40 Code of Federal Regulations, Section 112. The SPCC is designed to prevent spills from on-site facilities and includes requirements for secondary containment, provides emergency response procedures, establishes training requirements, and so forth.

The Hazardous Materials Transportation (HMT) Act is the federal legislation that regulates transportation of hazardous materials. The primary regulatory authorities are the U.S. Department of Transportation, the Federal Highway Administration, and the Federal Railroad Administration. The HMT Act requires that carriers report accidental releases of hazardous materials to the Department of Transportation at the earliest practical moment (49 CFR Subchapter C). The

California Department of Transportation (Caltrans) sets standards for trucks in California. The regulations are enforced by the California Highway Patrol.

California Assembly Bill 2185 requires local agencies to regulate the storage and handling of hazardous materials and requires development of a business plan to mitigate the release of hazardous materials. Businesses that handle any of the specified hazardous materials must submit to government agencies (i.e., fire departments), an inventory of the hazardous materials, an emergency response plan, and an employee training program. The information in the business plan can then be used in the event of an emergency to determine the appropriate response action, the need for public notification, and the need for evacuation.

Contra Costa County has adopted an industrial safety ordinance that addresses the human factors that lead to accidents. The ordinance requires stationary sources to develop a written human factors program that considers human factors as part of process hazards analyses, incident investigations, training, and operating procedures, among others.

## Significance Criteria

The proposed project impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

## Discussion of Impacts

**VIII a - b.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Windscreens, enclosures, shrouds and mist/fog systems may be constructed at bulk material storage and handling facilities (e.g., petroleum coke and coal facilities) which are located within industrial areas. Construction of pollution control equipment as a result of the proposed project is expected to occur in industrial areas. Construction of wind screens, enclosures, shrouds, or water mist/fog systems would not introduce any new hazards or require the use of hazardous materials during either construction or operational activities.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures or the use of hazardous materials. Trackout prevention at construction sites is currently required as part of SWPPP requirements. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have impacts on hazards and hazardous materials, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no impacts on hazards or hazardous materials.

Health and Safety Code §25506 specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency response plans generally require the following:

- Types of hazardous materials used and their locations;
- Training programs for employees including safe handling of hazardous materials and emergency response procedures and resources.
- Procedures for emergency response notification;
- Proper use of emergency equipment;
- Procedures to mitigate a release or threatened release of hazardous materials and measures to minimize potential harm or damage to individuals, property, or the environment; and
- Evacuation plans and procedures.

Hazardous materials at existing facilities would continue to be used in compliance with established OSHA or Cal/OSHA regulations and procedures, including providing adequate ventilation, using recommended personal protective equipment and clothing, posting appropriate signs and warnings, and providing adequate worker health and safety training. The exposure of employees is regulated by Cal-OSHA in Title 8 of the CCR. Specifically, 8 CCR 5155 establishes permissible exposure levels (PELs) and short-term exposure levels (STELs) for various chemicals. These requirements apply to all employees. The PELs and STELs establish levels below which no adverse health effects are expected. These requirements protect the health and safety of the workers, as well as the nearby population including sensitive receptors.

In general, all local jurisdictions and all facilities using a minimum amount of hazardous materials are required to formulate detailed contingency plans to eliminate, or at least minimize, the possibility and effect of fires, explosion, or spills. In conjunction with the California Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for area and business emergency response

plans. These requirements include immediate notification, mitigation of an actual or threatened release of a hazardous material, and evacuation of the emergency area.

The above regulations provide comprehensive measures to reduce hazards of explosive or otherwise hazardous materials. Compliance with these and other federal, state and local regulations and proper operation and maintenance of equipment should ensure the potential for explosions or accidental releases of hazardous materials is not significant. Therefore, the proposed new rules and rule amendments are not expected to create a significant hazard to the public or environment.

**VIII c.** Schools may be located within a quarter mile of commercial, industrial or institutional facilities affected by the proposed new Rule 6-6 and amendments to Rule 6-1. It would be expected that these facilities are taking the appropriate and required actions to ensure proper handling of hazardous materials, substances or wastes near school sites. The proposed new rules and rule amendments would not result in the construction or operation of additional equipment or result in modifications to existing equipment, that would generate hazardous emissions, or result in the handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school. Therefore, no increase in hazardous emissions from implementation of the proposed new rules and rule amendments would be expected.

**VIII d.** Government Code §65962.5 requires creation of lists of facilities that may be subject to Resource Conservation and Recovery Act (RCRA) permits or site cleanup activities. It is not known if the affected commercial, industrial, and institutional facilities are located on the hazardous materials sites list pursuant to Government Code §65962.5. However, the rule amendments and proposed new rules are expected to increase the control of fugitive dust emissions and would not interfere with site cleanup activities or create additional site contamination, and would not be expected to create a significant hazard to the public or environment.

**VIII e-f.** The proposed project would not result in a safety hazard for people residing or working within two miles of a public airport or air strip. No impacts on airports or airport land use plans are anticipated from the proposed new rules and rule amendments, which are expected to increase the control of fugitive dust emissions. Modifications are expected to be confined to the existing commercial, industrial and institutional land uses. Therefore, no significant adverse impacts on an airport land use plan or on a private air strip are expected.

**VIII g-h.** Facilities affected by the proposed new rules and rule amendments may be adjacent to wildlands. The proposed new rules and rule amendments are not expected to generate additional development that would place structures closer to wildland areas. It is expected that facilities adjacent to wildland areas take appropriate and required actions to protect their property from wildland fires. The proposed new rules and rule amendments would not increase the existing risk of fire hazards in areas with flammable brush, grass, or trees, nor would it increase fire risk by increasing the use of flammable materials. The proposed new rules and rule amendments are not expected to expose people or structures to wild fires. Therefore, no significant increase in fire hazards is expected due to the proposed new rules and rule amendments.

## Conclusion

Based upon these considerations, no significant adverse hazards and hazardous materials impacts are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**IX. HYDROLOGY AND WATER QUALITY.**

Would the project:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| i) | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) | Inundation by seiche, tsunami, or mudflow?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles). Reservoirs and drainage streams are located throughout the area within the BAAQMD’s jurisdiction, and discharge into the Bays. Marshlands incised with numerous winding tidal channels containing brackish water are located throughout the Bay Area.

The San Francisco Bay estuary system is one of the largest in the country and drains approximately 40 percent of California. Water from the Sacramento and San Joaquin Rivers of the Central Valley flow into what is known as the Delta region, then into the sub-bays, Suisun Bay and San Pablo Bay, and finally into the Central Bay and out the Golden Gate. The Delta is a large triangle of interconnected sloughs and agricultural “islands” that forms a key link in California’s water delivery system. Some of the fresh water flows through the Delta and into Bay, but much is diverted from the Bay. Nearly half of the surface water in California starts as rain or snow that falls within the watershed and flows downstream toward the Bay. Much of the water flowing toward the Bay is diverted for agricultural, residential, and industrial purposes as well as delivery to cities of southern California as part of state and federal water projects (ABAG, 2013).

The two major drainages, the Sacramento and San Joaquin Rivers receive more than 90 percent of runoff during the winter and spring months from rainstorms and snow melt. San Francisco Bay encompasses approximately 1,600 square miles and is surrounded by the nine Bay Area counties of which seven border the Bay. Other surface waters flow either directly to the Bay or Pacific Ocean. The drainage basin that contributes surface water flows directly to the Bay covers a total area of 3,464 square miles. The largest watersheds include Alameda Creek (695 square miles), the Napa River (417 square miles), and Coyote Creek (353 square miles) watersheds. The San Francisco Bay estuary includes deep-water channels, tidelands, and marshlands that provide a variety of habitats for plants and animals. The salinity of the water varies widely as the landward flows of saline water and the seaward flows of fresh water converge near the Benicia Bridge. The salinity levels in the Central Bay can vary from near oceanic levels to one quarter as much, depending on the volume of freshwater runoff (ABAG 2013).

## Regulatory Background

The Federal Clean Water Act of 1972 primarily establishes regulations for pollutant discharges into surface waters in order to protect and maintain the quality and integrity of the nation's waters. This Act requires industries that discharge wastewater to municipal sewer systems to meet pretreatment standards. The regulations authorize the U.S. EPA to set the pretreatment standards. The regulations also allow the local treatment plants to set more stringent wastewater discharge requirements, if necessary, to meet local conditions.

The 1987 amendments to the Clean Water Act enabled the U.S. EPA to regulate, under the National Pollutant Discharge Elimination System (NPDES) program, discharges from industries and large municipal sewer systems. The U.S. EPA set initial permit application requirements in 1990. The State of California, through the State Water Resources Control Board, has authority to issue NPDES permits, which meet U.S. EPA requirements, to specified industries.

The Porter-Cologne Water Quality Act is California's primary water quality control law. It implements the state's responsibilities under the Federal Clean Water Act but also establishes state wastewater discharge requirements. The Regional Water Quality Control Board administers the state requirements as specified under the Porter-Cologne Water Quality Act, which include storm water discharge permits. The water quality in the Bay Area is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board.

In response to the Federal Act, the State Water Resources Control Board prepared two state-wide plans in 1991 and 1995 that address storm water runoff: the California Inland Surface Waters Plan and the California Enclosed Bays and Estuaries Plan, which have been updated in 2005 as the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. Enclosed bays are indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. San Francisco Bay, and its constituent parts, including Carquinez Strait and Suisun Bay, fall under this category.

The San Francisco Bay Basin Plan identifies the: (1) beneficial water uses that need to be protected; (2) the water quality objectives needed to protect the designated beneficial water uses; and (3) strategies and time schedules for achieving the water quality objectives. The beneficial uses of the Carquinez Strait that must be protected which include water contact and non-contact recreation, navigation, ocean commercial and sport fishing, wildlife habitat, estuarine habitat, fish spawning and migration, industrial process and service supply, and preservation of rare and endangered species. The Carquinez Strait and Suisun Bay are included on the California list as impaired water bodies due to the presence of chlordane, copper, DDT, diazinon, dieldrin, dioxin and furan compounds, mercury, nickel, PCBs, and selenium.

## Significance Criteria

### Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 263,000 gallons per day of potable water.

**Water Quality:**

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

**Discussion of Impacts**

**IX a. and f.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Windscreens, enclosures, shrouds, and water mist/fog systems may be constructed at bulk material storage and handling facilities (e.g., petroleum coke and coal facilities) which are located within industrial areas. The construction and operation of windscreens, enclosures, or shrouds do not require the use of water and are not expected to result in any increase in wastewater.

Water mist and fog systems are effective at reducing dust. Rather than spraying significant volumes of water, fog and mist systems create small water droplets that are more effective at contacting small dust particles than water spray systems. Estimates of water fog and water spray systems indicate that they are 10-20 times more effective at reducing fugitive dust per gallon of water. Water mist and fog systems produce very small water droplets that come into contact with dust particles. Because the water use is in a very fine mist/fog, the amount of water use is reduced, as compared to a water spray, such that the application of water is minimal and no water runoff is expected.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures and are not expected to significantly add to water consumption or degrade water quality. Trackout prevention at construction sites is currently required as part of SWPPP and water use is minimized by recycling water in truck wash stations. Construction activities associated with new development would be

better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Better enforcement of the SWPPP requirements is expected to minimize track out of soil/dust and other materials that could potentially be discharged to water bodies as part of surface water runoff, providing a beneficial impact to water quality. Therefore, new Rule 6-6 is expected to help minimize water quality impacts associated with water runoff. Development that may be subject to this rule may have impacts on hydrology and water quality, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no impacts on hydrology and water quality. Therefore, the proposed project is not expected to result in an increase in wastewater discharge, would not be expected to result in water quality impacts, and would not result in the degradation of surface water. The proposed project is not expected to result in any modifications to NPDES permits or result in violation of NPDES permits. Further, the proposed project would not result in an increase in wastewater that requires treatment and would not impact any wastewater treatment facility.

**IX b.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Emission control equipment is expected to include windscreens, enclosures, shrouds, and water mist/fog systems. Trackout prevention at construction sites is currently required as part of SWPPP and water use is minimized by recycling water in truck wash stations. Thus, water demand impacts are limited to the use of water mist and fog systems.

Installation of windscreens, enclosures, shrouds and water mist/fog systems are not expected to require extensive construction activities. No grading or extensive site preparation is expected to be required to construct foundations, for example. Site preparation is expected to be limited to the construction of footings for windscreens/enclosures so that the plots would be very small in area, thus, requiring little or no water for fugitive dust control. Therefore, little or no water for dust suppression purposes is expected to be needed for construction activities under the proposed new rules and rule amendments.

The amendments to Rule 6-1 are expected to result in the construction and operation of water mist and fog systems. The water requirements for these systems are summarized in Table 3-10. Up to five water fog systems are expected to be installed and each of these water fog systems is anticipated to use an average of 1,710 gallons per day, totaling 8,550 gallons of incremental daily water use. Thirty-four water mist systems are expected to be installed. Each of these water mist systems is anticipated to use 855 gallons per day, totaling 29,070 gallons of incremental daily water use. Total incremental water use for the proposed wind screens, and judicious use of water is 37,620 gallons per day. It is conservatively estimated that all five of these water fog systems are installed to meet the requirements of the amendments to Rule 6-1.

The proposed project would be considered significant if it exceeded the CEQA threshold of 263,000 gallons or more of potable water per day. Since the proposed project is expected to use approximately 37,620 gallons per day, the proposed project will not significantly alter water demand or interfere with groundwater recharge or cause any notable change in the groundwater table level.

**TABLE 3-10**

**Potential Water Demand Impacts Associated with Amendments to Rule 6-1, Proposed New Regulation 6 and Proposed New Rule 6-6**

<b>ACTIVITY</b>	<b>POTENTIAL WATER USE (gpd)</b>
1 Water Fog System	1,710
5 Water Fog Systems	8,550
1 Water Mist System	855
34 Water Mist Systems	29,070
<b>TOTAL WATER USE</b>	<b>37,620</b>
Significance Threshold	263,000
<b>SIGNIFICANT?</b>	<b>No</b>

**IX c, d, and e.** The proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. The proposed project does not have the potential to substantially increase the area subject to runoff since construction will be minor in scope and limited to existing facilities in industrial areas. The construction of windscreens, enclosures, shrouds, and water mist/fog systems are not expected to result in a substantial increase in impervious surfaces that would result in an increase in water runoff. Additionally, facilities and major construction sites are typically expected to develop a SWPPP to address storm water impacts. The proposed project is also not expected to alter the existing drainage or drainage patterns, result in erosion or siltation, alter the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite as there will be no significant water use. Therefore, no significant adverse impacts to storm water runoff or existing drainage patterns are expected as a result of the proposed project.

**IX g, h, i, and j.** The proposed project does not include the construction of new or relocation of existing housing or other types of facilities and, as such, would not require the placement of housing or other structures within a 100-year flood hazard area. (See also XIII “Population and Housing”). Any construction activities associated with the proposed project would occur within the confines of existing facilities and as a result, the proposed project would not be expected to create or substantially increase risks from flooding; expose people or structures to significant risk of loss, injury or death involving flooding; or increase existing risks, if any, of inundation by seiche, tsunami, or mudflow.

**Conclusion**

Based upon these considerations, no significant adverse impacts to hydrology and water quality are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>X. LAND USE AND PLANNING.</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to a general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses.

The amendments to Regulation 6 will affect stationary sources with fugitive PM emissions in the Bay Area. Some of these sources are located in industrial areas (e.g., bulk material storage and handling facilities). Large disturbed surface sites (e.g., landfills) would also tend to be located within industrial areas. Large construction sites that would be affected by Rule 6-6 and required to prevent trackout onto paved roadways could be located in various land uses throughout the Bay Area.

## Regulatory Background

Land uses are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

## Significance Criteria

The proposed project impacts will be considered significant on land use and planning if the project conflicts with the land use and zoning designations established by local jurisdictions, or any applicable habitat conservation or natural community conservation plan.

## Discussion of Impacts

**X a-c.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Windscreens, enclosures, shrouds, and water mist/fog systems may be constructed at bulk handling facilities, which are located within industrial areas. Construction of air pollution control equipment as a result of the proposed project are expected to occur in industrial areas and are thus not expected to affect land use and planning.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP requirements. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have land use impacts, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no land use impacts.

Construction associated with the proposed project are expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities. All construction would take place at already existing facilities that have been previously graded. Thus, the proposed project would not result in impacts that would physically divide an established community.

The proposed project is expected to primarily affect industrial areas. Land uses surrounding industrial areas can vary considerably and include industrial areas, commercial areas, open space, and residential areas. The General Plans and land use plans for areas with industrial land uses, such as Contra Costa County, allow for and encourage the continued use of industrial areas within their respective communities. Some of the General Plans encourage the modernization of existing industrial areas. The proposed project is not expected to conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project because any new equipment would be located within the confines of existing industrial or commercial facilities. The jurisdictions with land use approval recognize and support the continued use of industrial facilities. The proposed new rules and rule amendments would not interfere with those policies or objectives.

## Conclusion

Based upon these considerations, no significant adverse land use impacts are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XI. MINERAL RESOURCES.</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses.

## Regulatory Background

Mineral resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

## Significance Criteria

The proposed project impacts on mineral resources will be considered significant if:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

## Discussion of Impacts

**XI a-b.** The proposed amendments to Rule 6-1, new Regulation 6 and new Rule 6-6 are not associated with any action that would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from

industrial sources, disturbed sites, and construction sites. Modifications may be required to install windscreens, enclosures, shrouds, and water mist/fog systems at bulk handling facilities, which are located within industrial areas. Construction of air pollution control equipment as a result of the proposed project is not expected to affect mineral resources.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP requirements. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements.

Construction and operation of new equipment associated with proposed Rule 6-6 and amendments to Rule 6-1 are not expected to resource mineral resources that are of value to the region or result in the loss of a locally important mineral resource site. Thus, no significant adverse impacts to mineral resources are expected.

## **Conclusion**

Based upon these considerations, no significant adverse impacts to mineral resources are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XII. NOISE.</b> Would the project result in:				
a) Exposure of persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The ambient noise environment in the Bay Area is defined by a wide variety of noise sources, with the predominant noise source being traffic. Traffic noise exposure is primarily a function of the volume of vehicles per day, the speed of those vehicles, the number of those vehicles represented by medium and heavy trucks, the distribution of those vehicles during daytime and nighttime hours, and the proximity of noise-sensitive receivers to the roadway. Existing traffic noise exposure is expected to be as low as 50 dB Ldn in the most isolated and less frequented locations of the Bay Area, while receivers adjacent to interstates are likely to experience levels as high as 75 dB Ldn (FTA, 2006). Bus transit also contributes to roadway noise levels. In San Francisco, a large portion of the transit bus fleet is electrified and, consequently, the contribution of bus transit to localized roadway noise levels is decreased (ABAG, 2013).

The Bay Area is also presently affected by noise from freight and passenger rail operations. While these operations generate significant noise levels in the immediate vicinity of the railways, train operations are intermittent and area railways are widely dispersed. Commuter rail such as San Francisco Muni Metro and Santa Clara Valley Transportation Authority (VTA) operate with more frequency than standard gauge rail operations but lower speeds resulting in lower noise levels. Bay Area Rapid Transit (BART) operations, on the other hand, can attain higher speeds and have the potential for greater noise levels along extended stretches. The contribution of rail noise to the overall ambient noise environment in the Bay Area is relatively minor compared to other sources such as vehicle traffic. Train operations may be a source of significant ground borne vibration near the tracks. Vibration sensitive receivers within 100 feet of rail operations may be adversely affected by vibration exposure during train events (ABAG, 2013).

The Bay Area is home to many airports—including public use, private use, and military facilities. Major airports include San Francisco International, Oakland International and Norman Y. Mineta San José International. In addition to the numerous daily aircraft operations originating and terminating at these facilities, aircraft not utilizing these airports frequently fly over the Bay Area. All of these operations contribute to the overall ambient noise environment. In general, like rail noise, the proximity of the receiver to the airport and aircraft flight path determines the noise exposure. Other contributing factors include the type of aircraft operated, altitude of the aircraft, and atmospheric conditions. Atmospheric conditions may contribute to the direction of aircraft operations (flow) and affect aircraft noise propagation (ABAG, 2013).

A wide variety of industrial and other non-transportation noise sources are located within the Bay Area. These include manufacturing plants, landfills, treatment plants (e.g., water), power generation facilities, food packaging plants, lumber mills, and aggregate mining facilities, just to name a few. Noise generated by these sources varies widely, but in many cases may be a significant if not dominant contributor to the noise environment in a specific community.

## Regulatory Background

Noise levels related to construction and operation activities are addressed in local General Plan policies and local noise ordinance standards. The General Plans and noise ordinances generally establish allowable noise limits within different land uses including residential areas, other sensitive use areas (e.g., schools, churches, hospitals, and libraries), commercial areas, and industrial areas.

## Significance Criteria

The proposed project impacts on noise will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise ordinance is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

## Discussion of Impacts

**XII a, c, and d.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required to install windscreens, enclosures, shrouds, and water mist/fog systems at bulk handling facilities, which are located within industrial areas.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP requirements. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have noise impacts, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no noise impacts.

The existing noise environment at each of the affected facilities is typically dominated by noise from existing equipment onsite, vehicular traffic around the facilities, and trucks entering and exiting facility premises. No new major industrial equipment is expected to be required to be installed due to the proposed project. Equipment such as windscreens, enclosures, shrouds, and water mist/fog systems are not major sources of noise and produce little to no noise impacts. Therefore, no noise impacts associated with the operation of the proposed project are expected. Air pollution control equipment is not generally a major noise source. Further, all noise producing equipment must comply with local noise ordinances and applicable OSHA and Cal/OSHA noise requirements. Therefore, industrial operations affected by the proposed new rules are not expected to have a significant adverse effect on local noise control laws or ordinances.

Construction activities associated with the proposed project may generate some noise associated with temporary construction equipment and construction-related traffic. Construction would likely require some truck trips to deliver equipment, a construction crew of up to about 10 workers, and a few pieces of construction equipment (e.g., forklift, welders, backhoes, cranes, and generators). All construction activities would be temporary and are expected to occur within the confines of existing commercial or industrial facilities so that no significant increase in noise during construction activities is expected.

**XII b.** The proposed project is not expected to generate or expose people to excessive ground borne vibration or ground borne noise. No large construction equipment that would generate

substantial noise or vibration (e.g., backhoes, graders, jackhammers, etc.), no new industrial equipment, and no increase in traffic is expected to be generated.

Construction activities could include the use of small backhoes to develop footings for windscreens or enclosures but no large equipment that would generate substantial vibration or noise is expected to be required. Further, construction activities are expected to be limited to within about a three-week period and occur during the daylight hours, in compliance with local noise standards and ordinances. Therefore, the proposed project is not expected to generate excessive ground borne vibration or noise.

**XII e-f.** It is not known if the existing commercial or industrial sites affected by the proposed project are located within existing airport land use plans. The addition of new or modification of existing windscreen, enclosures, shrouds, and water mist/fog systems would not expose people residing or working in the project area to excessive noise levels associated with airports, as this type of equipment is not typically noise generating equipment. The proposed project would not locate residents or commercial buildings or other sensitive noise sources closer to airport operations. As noted in the previous item, there are no components of the proposed project that would substantially increase ambient noise levels, either intermittently or permanently.

## Conclusion

Based upon these considerations, no significant adverse noise impacts are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING.</b> Would the project:				
a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. The amendments to Rule 6-1 would apply to facilities which are located within commercial or industrial areas in the Bay Area.

According to the Association of Bay Area Governments (ABAG), population in the Bay Area is currently about 7.2 million people and is expected to grow to about 9.3 million people by 2040 (ABAG, 2013). Two major demographic changes shape the forecast of household and job growth: the increase in the senior population and the increase in Latino and Asian populations. These demographic changes lead to three major trends in the regional growth by 2040:

- Increase in group houses. The increase in the senior population results in an increase in the amount of resident care facilities. More than 66,000 additional group housing residents are forecasted by 2040.
- Decline in labor force participation: The overall labor force participation rate declines given the increase in the senior population, even taking into account increases in the percentage of people working beyond the age of 65. By 2040, it is estimated that 49.8 out of 100 people will be employed or looking for work, compared to 51.6 in 2010.
- Increase in household size. The number of people per household is expected to increase from 2.69 in 2010 to 2.75 in 2040 as a result of the increase in the Latino and Asian populations, as well as the number of multi-generational households.

## Regulatory Background

Population and housing growth and resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

## Significance Criteria

The proposed project impacts on population and housing will be considered significant if:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

## Discussion of Impacts

**XIII a).** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required to install windscreens, enclosures, shrouds, and water mist/fog systems at bulk handling facilities, which are located within industrial areas.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP requirements. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have impacts on population and housing, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no impacts on population and housing.

It is expected that the existing labor pool would accommodate the labor requirements for the construction of new or modified equipment at the facilities, as the existing labor pool in the Bay Area can accommodate the estimated 10 construction workers per facility. In addition, it is not expected that the affected facilities would need to hire additional permanent personnel to implement the proposed rule of operate the new equipment. As such, adopting the proposed project is not expected to induce substantial population growth.

**XIII b and c).** As discussed previously, the proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities. All construction would take place at existing facilities that have been previously graded. The implementation of the proposed new rules and rule amendments is not expected to result in the creation of any industry/business that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people or housing elsewhere in the Bay Area. Based upon these considerations, significant population and housing impacts are not expected from the implementation of the proposed project.

## **Conclusion**

Based upon these considerations, no significant adverse impacts to population and housing are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIV. PUBLIC SERVICES.** Would the project:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**Setting**

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. Amendments to Regulation 6 would generally apply to facilities which are located within commercial or industrial areas in the District.

Given the large area covered by the BAAQMD, public services are provided by a wide variety of local agencies. Fire protection services are managed at the local level, typically by municipalities, counties, fire protection districts, or volunteer fire companies. California Government Code §38611 states that any city organized under general law must establish a fire department unless it is included within the boundaries of an established fire protection district. State and federal lands are generally served by State and federal fire agencies, e.g., CALFIRE and National Park Service. In some cases, businesses and native tribes manage their own fire departments. Each fire protection agency is responsible for serving its own prescribed area, but mutual aid agreements are in wide use across the region such that agencies can rely on assistance from neighboring agencies in the case of overwhelming demand (ABAG, 2013).

Police services are provided on the State, county, and local levels. Police services provide law enforcement in crime prevention, traffic and congestion control, safety management, emergency response, and homeland security. The California Highway Patrol (CHP) is responsible for police protection along the interstate highway systems and provides services for traffic management, emergency response, and protection of the highway system. Each county in the Bay Area has its

own sheriff's department responsible for police protection in unincorporated areas of each county. Each incorporated city and town has a police department responsible for police protection within its own jurisdiction (ABAG, 2013).

Although the California public school system is under the policy direction of the Legislature, the California Department of Education relies on local control for the management of school districts. School district governing boards and district administrators allocate resources among the schools of the district and set education priorities for their schools. Each jurisdiction in the Bay Area provides residents with local public education facilities and services, including elementary, middle, secondary, and post-secondary schools, as well as special and adult education (ABAG, 2013).

Public facilities within the BAAQMD are managed by different county, city, and special-use districts.

## Regulatory Background

City and/or County General Plans usually contain goals and policies to assure adequate public services are maintained within the local jurisdiction.

## Significance Criteria

The proposed project impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

## Discussion of Impacts

**XIV a.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required to install windscreens, enclosures, shrouds, and water mist/fog systems at bulk handling facilities, which are located within industrial areas.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP requirements. Construction activities

associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have impacts on public services, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no impacts on public services.

Construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities. All construction would take place at existing facilities for which public services are currently provided. Based on the above, no additional fire or police protection services would be required due to the proposed amendments to Rule 6-1.

As noted in the “Population and Housing” discussion above, the proposed project is not expected to induce population growth because the existing local labor pool (e.g., workforce) is expected to be sufficient to accommodate the expected construction work force of up to 10 workers per facility. No increase in permanent workers is expected to be required to operate the equipment associated with the proposed project. Therefore, there will be no increase in local population and thus no impacts are expected to local schools or parks.

The proposed project would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives. The facilities affected by the proposed project are existing facilities for which public services are already required and no increase in the need for such services is expected. There will be no increase in population as a result of the adoption of the proposed new rules and rule amendments, therefore, no need for physically altered government facilities.

## **Conclusion**

Based upon these considerations, no significant adverse impacts to public services are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XV. RECREATION.**

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
- 

**Setting**

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. The amendments to Rule 6-1, new Regulation 6 and new Rule 6-6 would apply to facilities which are generally located within commercial or industrial or institutional areas within the District.

The Bay Area contains over one million acres of parks and open space areas. Approximately 147,000 acres of new parkland were added to the regional’s open space inventory between 2002 and 2011, representing a 26 percent increase. Additionally, approximately 200,000 acres of privately owned land are held in permanent reserve as of 2011. While access by the general public to these reserve areas is restricted, they are important for the preservation of wildlife habitats and the protection of the environment (ABAG, 2013).

**Regulatory Background**

Recreational areas are generally protected and regulated by the City and/or County General Plans at the local level through land use and zoning requirements. Some parks and recreation areas are designated and protected by state and federal regulations.

**Significance Criteria**

The proposed project impacts on recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

## Discussion of Impacts

**XV a-b.** As discussed under “Land Use” above, there are no provisions in the amendments to Rule 6-1, new Regulation 6 or new Rule 6-6 affecting land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments; no land use or planning requirements will be altered by the proposed new rules and rule amendments. Construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities that may require up to 10 construction workers each. Further, no increase in permanent workers is expected. All construction would take place at existing facilities that have been previously graded. Thus, there would be no impacts on recreation facilities.

The proposed project would not increase or redistribute population and, therefore, would not increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or the expansion of existing recreational facilities. Therefore, adoption of the proposed new rules and rule amendments is not expected to have any significant adverse impacts on recreation.

## Conclusion

Based upon these considerations, no significant adverse recreation impacts are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVI. TRANSPORTATION/TRAFFIC.</b> Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards because of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles). Transportation systems located within the Bay Area include railroads, airports, waterways, and highways. The Port of Oakland and three international airports in the area serve as hubs for commerce and transportation. The transportation infrastructure for vehicles and trucks in the Bay Area ranges from single lane roadways to multilane interstate highways. The Bay Area currently contains over 1,300 directional miles of limited-access highways, which include both interstates and state highways. In addition, the Bay Area has over 33,000 directional miles of arterials and local streets, providing more localized access to individual communities. Together, these roadway facilities accommodate nearly 17 million vehicle trips a day. There are over 11,500 transit route miles of service including heavy rail (BART), light rail (Muni Metro and VTA Light Rail), commuter rail (Caltrain and Alameda Commuter Express or ACE), diesel and electric buses, cable cars, and ferries. The Bay Area also has an extensive local system of bicycle routes and pedestrian paths and sidewalks. At a regional level, the share of workers driving alone was about 68 percent in 2010. The portion of commuters that carpool was about 11 percent in 2010, while an additional 10 percent utilize public transit. About 3 percent of commuters walked to work in 2010. In addition, other modes of travel (bicycle, motorcycle, etc.), account for three percent of commuters in 2010 (ABAG, 2013). Cars, buses, and commercial vehicles travel about 149 million miles a day (2010) on the Bay Area freeways and local roads. Transit serves about 1.6 million riders on the average weekday (ABAG, 2013).

The region is served by numerous interstate and U.S. freeways. On the west side of San Francisco Bay, Interstate 280 and U.S. 101 run north-south. U.S. 101 continues north of San Francisco into Marin County. Interstates 880 and 660 run north-south on the east side of the Bay. Interstate 80 starts in San Francisco, crosses the Bay Bridge, and runs northeast toward Sacramento. Interstate 80 is a six-lane north-south freeway which connects Contra Costa County to Solano County via the Carquinez Bridge. State Routes 29 and 84, both highways that allow at-grade crossings in certain parts of the region, become freeways that run east-west, and cross the Bay. Interstate 580 starts in San Rafael, crosses the Richmond-San Rafael Bridge, joins with Interstate 80, runs through Oakland, and then runs eastward toward Livermore. From the Benicia-Martinez Bridge, Interstate 680 extends north to Interstate 80 in Cordelia. Interstate 780 is a four lane, east-west freeway extending from the Benicia-Martinez Bridge west to I-80 in Vallejo.

## Regulatory Background

Transportation planning is usually conducted at the state and county level. Planning for interstate highways is generally done by the California Department of Transportation.

Most local counties maintain a transportation agency that has the duties of transportation planning and administration of improvement projects within the county and implements the Transportation Improvement and Growth Management Program, and the congestion management plans (CMPs). The CMP identifies a system of state highways and regionally significant principal arterials and specifies level of service standards for those roadways.

## Significance Criteria

The proposed project impacts on transportation and traffic will be considered significant if:

- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.

## Discussion of Impacts

**XVI a and b.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required to install windscreens, enclosures, shrouds, and water mist/fog systems at bulk handling facilities, which are located within industrial areas. The proposed amendments to rule 6-1 could result in traffic during the construction period of about 10 workers and one or two delivery trucks. No increase in permanent workers or truck traffic is expected following the construction period.

Proposed new Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. These measures would not require the construction of new structures. Trackout prevention at construction sites is currently required as part of SWPPP requirements. Construction activities associated with new development would be better regulated under Rule 6-6; however, the requirements to prevent trackout currently exist as part of the SWPPP requirements. Development that may be subject to this rule may have impacts on transportation and traffic, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no impacts on transportation and traffic.

No increase in employees or additional delivery trucks would be expected as a result of the proposed project following the construction period. Therefore, the proposed new Rule 6-6 and amendments to Rule 6-1 are not expected to conflict with any traffic plans (including congestion management plans), ordinances or policies.

**XVI c.** The proposed new rules and rule amendments are not expected to involve the delivery of materials via air so no increase in air traffic is expected. Construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities. All construction would take place at existing industrial facilities. Therefore, the proposed project would not result in a change in air traffic patterns or result in a change in location that results in substantial safety risks.

**XVI d - e.** The proposed new rules and rule amendments would not increase traffic hazards or create incompatible uses. The proposed new rules and rule amendments do not involve construction of any roadways or other transportation design features, so no changes to current roadway designs that would increase traffic hazards are expected. Emergency access at commercial or industrial facilities affected by the proposed new rules and rule amendments is not expected to be impacted by the proposed project, as no modifications that effect traffic or access are expected to be required because of the proposed project. The proposed new rules and rule amendments are not expected to increase vehicle trips or to alter the existing long-term circulation patterns. The proposed project is not expected to require a modification to circulation, thus, no long-term impacts on the traffic circulation system are expected to occur.

**XVI f)** The proposed new rules and rule amendments are not expected to affect the performance of mass transit or non-motorized travel to street, highways and freeways, pedestrian or bicycle paths as construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities. The proposed amendments to rule 6-1 could result in traffic during the construction period of about 10 workers and one or two delivery trucks. No increase in permanent workers or truck traffic is expected following the construction period. Therefore, the proposed new rules and rule amendments would not conflict with any congestion management programs, result in changes to level of service at intersections, increase travel demand, impact public transit, or impact bicycle or pedestrian safety. No changes are expected to parking capacity at or in the vicinity of affected facilities as the proposed new rules and rule amendments are not expected to require additional employees or truck/delivery trucks. Therefore, no impacts resulting in changes to traffic patterns or adopted traffic plans or programs are expected.

## Conclusion

Based upon these considerations, no significant adverse impacts to transportation and traffic are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than-Significant Impact	No Impact
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**XVII. TRIBAL CULTURAL RESOURCES.**

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Setting**

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses.

The Carquinez Strait represents the entry point for the Sacramento and San Joaquin Rivers into the San Francisco Bay. This locality lies within the San Francisco Bay and the west end of the Central Valley archaeological regions, both of which contain a rich array of prehistoric and historical cultural resources. The areas surrounding the Carquinez Strait and Suisun Bay have been occupied for centuries given their abundant natural resources and moderate climate. The arrival of Native Americans into the Bay Area is associated with documented cultural resources from about 5,500 years ago (ABAG, 2013).

Six different groups of Native American population, identified by their language, lived within the Bay Area, including Costanoan, Eastern Miwok, Patwin, Coast Miwok, Pomo, and Wappo. Native villages and campsites were inhabited on a temporary basis and are found in several ecological niches due to the seasonal nature of their subsistence base. Remains of these early populations indicate that main villages, seldom more than 1,000 residents, were usually established along water courses and drainages. By the late 1760s, about 300,000 Native Americans lived in California (ABAG, 2013).

## Regulatory Background

The State CEQA Guidelines were amended in July 2015 to include evaluation of impacts on tribal cultural resources. Tribal cultural resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe (Public Resources Code 21074).

## Significance Criteria

The proposed project impacts to tribal resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of tribal cultural significance to a community or ethnic or social group or a California Native American tribe.
- Unique objects with cultural value to a California Native American tribe are present that could be disturbed by construction of the proposed project.

## Discussion of Impacts

**XVII a).** As discussed in Section V, Cultural Resources, resources (buildings, structures, equipment) that are less than 50 years old are excluded from listing in the National Register of Historic Places unless they can be shown to be exceptionally important. The proposed new rules and rule amendments affect bulk handling and storage equipment at commercial and industrial facilities and prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites, and sites with large disturbed surfaces. Some affected facilities may have equipment older than 50 years. However, such equipment does not typically meet the criteria identified in CEQA Guidelines §15064.5(a)(3), are not listed or eligible for listing in the California Register of Historic Resources or a local register of historical resources (Public Resources Code Section 5020.1(k), and are not considered to have cultural value to a California Native American tribe. Further, construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities. All construction would take place at existing facilities that have been previously graded. Because construction will be limited to facilities that have been graded, the proposed new rules and rule amendments are not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, the proposed new rules and rule amendments are not expected to

result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources.

As part of releasing this CEQA document for public review and comment, the document is circulated to the State Clearinghouse that provides notice of the proposed project to all California Native American Tribes that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code § 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Native American Tribes may respond to the notice, in writing, requesting consultation on the proposed new rules and rule amendments.

Since construction activities will be limited to existing facilities, the proposed new rules and rule amendments are not expected to affect historical or tribal resources as defined in Public Resources Section 5020.1(k), or 5024.1. Therefore, no impacts to tribal resources are anticipated to occur as a result of the proposed new rules and rule amendments.

## **Conclusion**

Based upon these considerations, no significant adverse impacts to tribal resources are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than-Significant Impact	No Impact
<b>XVIII. UTILITIES/SERVICE SYSTEMS.</b> Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

Given the large area covered by the BAAQMD, public utilities are provided by a wide variety of local agencies. Most industrial facilities have wastewater and storm water treatment facilities and discharge treated wastewater under the requirements of National Pollutant Discharge Elimination System (NPDES) permits. Water is supplied to affected facilities by several water purveyors in the Bay Area. Solid waste is handled through a variety of municipalities, through recycling activities and at disposal sites.

There are no hazardous waste disposal sites within the jurisdiction of the BAAQMD. Hazardous waste generated at facilities, which is not recycled off-site, is required to be disposed of at a licensed hazardous waste disposal facility. Two such facilities are the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Safety-Kleen facility in Buttonwillow (Kern County). Hazardous waste can also be transported to permitted facilities outside of California.

City and/or County General Plans usually contain goals and policies to assure adequate utilities and service systems are maintained within the local jurisdiction.

## Significance Criteria

The proposed project impacts on utilities/service systems will be considered significant if:

- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- An increase in demand for utilities impacts the current capacities of the electric utilities.
- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use a substantial amount of potable water.
- The project increases demand for water by more than 263,000 gallons per day.
- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

## Discussion of Impacts

**XVIII a and e).** The potential water use and wastewater impacts associated with implementation of the proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 were discussed under Hydrology and Water Quality (see Section IX a.). The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required to install windscreens, enclosures, shrouds, and water mist/fog systems at bulk handling facilities, which are located within industrial areas. Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. Water mist and fog systems produce very small water droplets that come into contact with dust particles. Because the water use is in a very fine mist/fog, the amount of water use is reduced, as compared to a water spray system, such that the application of water is minimal and no water runoff or wastewater discharge is expected.

**XVIII b and d).** Construction associated with the proposed project is expected to be limited to windscreens, enclosures, shrouds, and water mist/fog systems at bulk material storage and handling facilities. As discussed in IX b above, up to five water fog systems are expected to be installed and each of these water fog systems is anticipated to use an average of 1,710 gallons per day, totaling 8,550 gallons of incremental daily water use. Thirty-four water mist systems are expected to be installed. Each of these water mist systems is anticipated to use 855 gallons per

day, totaling 29,070 gallons of incremental daily water use. Total incremental water use for the proposed wind screens, and judicious use of water is 37,620 gallons per day (see Table 3-10). The proposed project would be considered significant if it exceeded the CEQA threshold of 263,000 gallons or more of potable water per day. Since the proposed project is expected to use approximately 37,620 gallons per day, the proposed project will not significantly alter water demand or impact water suppliers.

**XVIII c).** The proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 are not expected to result in the construction of substantial new equipment, or result in substantial modifications to existing equipment or operations. The proposed project is not expected to require additional paving that would generate additional stormwater runoff. Therefore, the proposed project would not alter the existing drainage system or require the construction of new storm water drainage facilities. Nor would the proposed project create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. Therefore, no significant adverse impacts on storm drainage facilities are expected.

**XVIII f and g).** Construction of air pollution control equipment as a result of proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 will not significantly increase solid or hazardous wastes generated by the affected existing facilities. No significant impacts on waste generation are expected from the implementation of the proposed new rules or amendments to existing rules. Waste streams from affected facilities would be treated/disposed/recycled in the same manner as they currently are handled. Therefore, no significant impacts to hazardous or solid waste disposal facilities are expected due to the proposed new rules. Facilities are expected to continue to comply with all applicable federal, state, and local statutes and regulations related to solid and hazardous wastes.

## Conclusion

Based upon these considerations, no significant adverse impacts to utilities/service systems are expected from the adoption of the proposed amendments to Rule 6-1, proposed new Regulation 6 or proposed new Rule 6-6.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIX. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion of Impacts

**XIX a.** The proposed new rules and rule amendments are designed to minimize fugitive dust emissions from industrial sources, disturbed sites, and construction sites. Modifications may be required to install windscreens, enclosures, shrouds, and water mist/fog systems at bulk handling facilities, which are located within industrial areas. New Regulation 6 establishes common definitions and test methods for all Regulation 6 rules. Rule 6-6 would prohibit the trackout of dirt and materials from bulk storage facilities, large construction sites and sites with large disturbed surfaces (e.g., landfills). The control of trackout is expected to be limited to traffic control measures, the use of grizzly bars or rumble grates, the use of truck wash stations, and the use of street sweepers and cleanup crews to clean up roadways. The facilities affected by amendments to Rule 6-1 would be made to existing industrial facilities (e.g., bulk handling and storage facilities) where native biological resources have been removed or are non-existent. In addition, cultural or tribal resources would also not be expected to occur. Development that may be subject to this rule may have significant environmental impacts, however, the actual development project is not part of proposed Rule 6-6 and the rule requirements imposed on the project will have no significant environmental impacts.

Therefore, the proposed new rules and rule amendments do not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory, as discussed in the previous sections of the CEQA checklist. As discussed in Section IV - Biological Resources, Section V - Cultural Resources, and Section XVII – Tribal Cultural Resources, no significant adverse impacts are expected to biological, cultural or tribal cultural resources.

**XIX b-c.** The proposed new Regulation 6, new Rule 6-6 and amendments to Rule 6-1 are not expected to result in any significant environmental impacts. Air quality impacts during construction activities are expected to be minor and below applicable significance thresholds. The proposed project is expected to result in a reduction in operational emissions of TSP (3.14 tons per day), PM<sub>10</sub> (1.60 tons per day), and PM<sub>2.5</sub> (0.21 tons per day) providing beneficial impacts to air quality. Further, the proposed project will implement Control Measure SS31 of the 2017 Clean Air Plan to help achieve the Plan's goals of reducing PM emissions to comply with ambient air quality requirements.

As discussed in the previous checklist discussions, the proposed new rules and rule amendments are not expected to exceed any of the applicable significance thresholds, which also serve as the cumulative significance thresholds. Therefore, the proposed project impacts are not considered to be cumulatively considerable (CEQA Guidelines §15064 (h)(1)) and are not expected to generate significant adverse cumulative impacts. The proposed project does not have adverse environmental impacts that are limited individually, but cumulatively considerable when considered in conjunction with other regulatory control projects. The proposed new rules and rule amendments are not expected to have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. No significant adverse environmental impacts are expected.

# **CHAPTER 4**

## **REFERENCES**

References

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**CHAPTER 4****References**

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**APPENDIX A**

**CONSTRUCTION EMISSIONS CALCULATIONS**

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Appendix A  
 Bay Area Air Quality Management District  
 Regulation 6, Rule 1; Regulation 6, Rule 6  
 Air Quality Analysis  
 Wind Screen Construction Equipment Emissions

Off-Road Emissions				Emission Factors (lb/hr)								Emissions (lb)							
Phase	Equipment	Amount	Days	Hours/Day	Total Hours	VOC	CO	NOx	SOx	PM10	CO2e	VOC	CO	NOx	SOx	PM10	PM2.5 <sup>(1)</sup>	CO2e	
Footings	Backhoe	1	5	8	40	0.026	0.365	0.306	0.001	0.019	0.019	1.023	14.587	12.256	0.032	0.769	0.754	0.767	
Footings	Loader	1	5	8	40	0.026	0.365	0.306	0.001	0.019	0.019	1.023	14.587	12.256	0.032	0.769	0.754	0.767	
Construction	Forklift	1	10	8	80	0.016	0.217	0.247	0.001	0.012	0.021	1.293	17.386	19.788	0.071	0.920	0.902	1.717	
Construction	Crane	1	10	4	40	0.058	0.406	0.802	0.001	0.037	0.035	2.313	16.238	32.068	0.059	1.495	1.465	1.414	
Construction	Manlift	1	10	8	80	0.005	0.174	0.103	0.000	0.002	0.011	0.400	13.921	8.219	0.035	0.191	0.187	0.852	

(1) PM2.5 emissions are calculated using PM10 emissions multiplied by a factor of 0.98

On-Road Emissions										Emission Factors (lb/mi)								Emissions (lb)							
Phase	Equipment	Trips/Day	Days	Miles	Total Miles	Duty	VOC	CO	NOx	SOx	PM10	CO2e	VOC	CO	NOx	SOx	PM10	PM2.5	CO2e						
Footings	Dump Truck	2	5	50	500	Heavy	0.001	0.001	0.004	0.011	0.000	0.003	3.759	0.268	1.909	0.743	0.018	1.359	0.852						
Footings	Water Truck	1	5	1	5	Medium	0.000	0.000	0.002	0.005	0.000	0.001	2.256	0.001	0.010	0.027	0.000	0.004	0.005						
Footings	Delivery Truck	6	5	50	1500	Heavy	0.001	0.001	0.004	0.011	0.000	0.003	3.759	0.803	5.727	17.229	0.054	4.076	2.557						
Footings	Workers	10	5	21.6	1080	Light	0.000	0.000	0.002	0.000	0.000	0.000	0.908	0.069	2.638	0.419	0.010	0.353	0.445						
Construction	Water Truck	1	10	1	10	Medium	0.000	0.000	0.002	0.005	0.000	0.001	2.256	0.003	0.020	0.053	0.000	0.009	0.010						
Construction	Cement Truck	2	10	50	1000	Heavy	0.001	0.001	0.004	0.011	0.000	0.003	3.759	0.535	3.818	11.486	0.036	2.717	1.705						
Construction	Workers	10	10	21.6	2160	Light	0.000	0.000	0.002	0.000	0.000	0.000	0.908	0.137	5.276	0.838	0.019	0.706	0.890						

Total Project Emissions (lbs) <sup>(1)</sup>										Peak Daily Emissions (lbs/day) <sup>(1)</sup>							
Phase	Equipment	CO	NOx	SOx	PM10	PM2.5	CO2e <sup>(2)</sup>	VOC	CO	NOx	SOx	PM10	PM2.5	CO2e <sup>(2)</sup>			
Off-Road Footings		2,0458	29,1731	24,5110	0.0636	1,5385	1,5078	1,5333	0.409	5,835	4,902	0.013	0.308	0.302			
On-Road Footings		1,1407	10,2832	23,4172	0.0815	5,7917	1,7315	3,8596	0.228	2,057	4,683	0.016	1,158	0,346			
Footings Total		3,1865	39,4562	47,9283	0.1452	7,3303	3,2393	5,3929	0.637	7,892	9,586	0.029	1,466	0,648			
Off-Road Construction		4,0049	47,5454	60,0759	0.1653	2,6063	2,5642	3,9835	0.400	4,755	6,008	0.017	0,261	0,255			
On-Road Construction		0,6753	9,1131	12,3773	0,0555	3,4319	1,0982	2,6046	0,068	0,911	1,238	0,006	0,343	0,110			
Construction Total		4,6802	56,6586	72,4532	0,2208	6,0382	3,6524	6,5881	0,468	5,666	7,245	0,022	0,604	0,365			
Project Total		7,87	96,11	120,38	0,37	13,37	6,89	11,98	0,64	7,89	9,59	0,03	1,47	0,65			

(1) Off-Road 2011. CO emissions from SCAQMD, 2006 : [http://www.aqmd.gov/ceqa/handbook/offroad/offroadEF07\\_25.xls](http://www.aqmd.gov/ceqa/handbook/offroad/offroadEF07_25.xls)  
 (2) - CO2e is reported in metric tons

On-Road PM2.5 Emissions										
Phase	Equipment	Duty	Total Miles	Fugitive PM EF	PM 2.5 Coefficient	PM2.5 Exhaust Coefficient	On-Road Fugitives	Exhaust PM EF	On-Road Exhaust	Total On-Road PM2.5
Footings	Dump Truck	Heavy	500	0.002	0.170	0.197	0.000	0.000	0.980	0.394
Footings	Water Truck	Medium	5	0.000	0.170	0.000	0.000	0.000	0.980	0.002
Footings	Delivery Truck	Heavy	1500	0.002	0.170	0.590	0.000	0.980	0.980	1.182
Footings	Workers	Light	1080	0.000	0.170	0.041	0.000	0.980	0.112	0.153
Construction	Water Truck	Medium	10	0.000	0.170	0.001	0.000	0.980	0.004	0.005
Construction	Cement Truck	Heavy	1000	0.002	0.170	0.393	0.000	0.980	0.395	0.788
Construction	Workers	Light	2160.00	0.000	0.170	0.081	0.000	0.980	0.224	0.305

Fugitive EFs	0.000221
Light Duty	0.000467
Medium Duty	0.002314
Heavy Duty	
Exhaust EFs	0.0001058
Light Duty	0.0004105
Medium Duty	0.0004029
Heavy Duty	

**APPENDIX B**  
**DRAFT NEGATIVE DECLARATION**

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[DRAFT NEGATIVE DECLARATION FOR PUBLIC REVIEW AND COMMENT]

**CALIFORNIA ENVIRONMENTAL QUALITY ACT  
NEGATIVE DECLARATION**

**New Regulation 6: Particulate Matter–Common Definitions and Test Methods  
Amendments to Regulation 6, Rule 1: General Requirements; and  
New Regulation 6, Rule 6: Prohibition of Trackout**

Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code §§ 21000 *et seq.*, and Sections 15071 and 15074 of the CEQA Guidelines, the Board of Directors of the Bay Area Air Quality Management District (Air District) hereby adopts this Negative Declaration finding that the adoption of New Regulation 6: Particulate Matter-Common Definitions and Test Methods; Amendments to Regulation 6, Rule 1: General Requirements; and New Regulation 6, Rule 6: Prohibition of Trackout will not have a significant effect on the environment.

**Project Name:** New Regulation 6: Particulate Matter–Common Definitions and Test Methods; Amendments to Regulation 6, Rule 1: General Requirements and New Regulation 6, Rule 6: Prohibition of Trackout

**Project Description:** The Air District has regulatory authority over stationary sources of air pollution in the San Francisco Bay Area. New Regulation 6 provides common definitions and source test methods that will be used in all Regulation 6 rules. New Regulation 6 does not create any substantive regulatory requirements or emission limits and will have no substantive effect on regulated entities or how they operate.

The proposed amendments to Rule 6-1 update particulate matter (PM) emission requirements and fall into three broad categories: (1) update the current PM emissions limits for general sources of PM emissions (including both concentration limits and mass emissions limits) to reflect the most stringent emissions levels achievable; (2) clarify the testing requirements to measure PM emissions and determine compliance with the rule; and (3) specify the source test methods used for compliance testing. Amendments to Rule 6-1 will also address PM emissions from the storage and handling of significant quantities of bulk materials, including petroleum coke and coal. The Staff Report and Initial Study provide background information on the rationale for updating Regulation 6, Rule 1.

New Rule 6-6 focuses on road dust and prohibits trackout of mud and dirt onto paved roadways from large bulk material storage and handling sites, large construction sites and large disturbed surface sites (greater than one acre). Prohibition of trackout is intended to control PM emissions. A separate Staff Report has been developed for proposed new Rule 6-6 to provide supporting information.

**Project Location:** The nine-county jurisdiction of the Bay Area Air Quality Management District, which includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano County and southern Sonoma County. A map of the project location is provided in Figure 2-1. on page 2-3 of the Initial Study attached hereto.

**Project Proponent and Lead Agency:** The Bay Area Air Quality Management District.

**Finding of No Significant Impact:** The Board of Directors of the Bay Area Air Quality Management District hereby finds, using its own independent judgment and analysis, that based on the whole record (including the Initial Study and public comments received) there is no substantial evidence that New Regulation 6: Particulate Matter–Common Definitions and Test Methods; Amendments to Regulation 6, Rule 1: General Requirements; and New Regulation 6, Rule 6: Prohibition of Trackout will have a significant effect on the environment.

**Initial Study:** A copy of the Initial Study documenting the reasons supporting the finding of no significant impact is attached hereto.

**Mitigation Measures:** No mitigation measures need to be included in the project to avoid potentially significant effects, as the project will not have any potentially significant effects.